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HIGH-SCHOOL VICTORY CORPS

FEDERAL SECURITY AGENCY, U. S. OFFICE OF EDUCATION

Washington, 1943

U.S. Office of Education
VICTORY CORPS SERIES
PAMPHLET NUMBER 1

*U.S. Office of Education
June 21, 1944*

THE CHALLENGE

**“When our enemies challenged our
country to stand up and fight, they challenged each
and every one of us, and each and every one of us has
accepted the challenge for himself and for the Nation.”**

Franklin D. Roosevelt

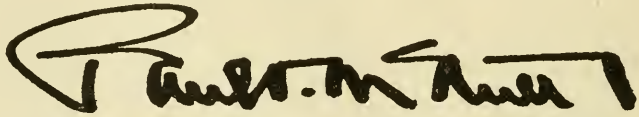
U. S. Office of education.

HIGH-SCHOOL VICTORY CORPS

**A National Voluntary Organization for Secondary Schools
Designed to Mobilize Secondary School Students for More
Effective Preparation for and Participation in Wartime Service**

**Federal Security Agency.....PAUL V. McNUTT, Administrator
U. S. OFFICE OF EDUCATION.....JOHN W. STUDEBAKER, Commissioner**

Every American wants most of all to know where and how and when he can best put his shoulder to the wheel. The task of the War Manpower Commission is to help answer that question. A Victory Corps in every secondary school will do much to stimulate America's 6½ million high-school youth to prepare themselves to help meet critical manpower needs in the months ahead. Moreover, it will give these students an opportunity to identify themselves immediately and directly with the war effort through various forms of service activities.



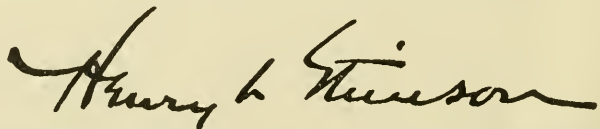
Washington, D. C., 1942

Chairman, War Manpower Commission

I am informed that the Office of Education has proposed and is establishing the High-School Victory Corps for the purpose of directing the training of the young people of this country along the lines which will be of benefit to the war effort of the United Nations in general and this Nation in particular.

The War Department is heartily in favor of the proposal that the high-school youth of America be given an opportunity to enroll in a Nation-wide organization under the direction of the school authorities. The Victory Corps, with its emphasis on a thorough mastery of fundamental subjects—physical training, special studies, and other activities that can properly be a part of any school's program—will enable the boys and girls to serve more usefully after graduation, both in the war effort directly and indirectly in other related pursuits.

I feel that the development of this Corps by the United States Office of Education, Federal Security Agency, in collaboration with the War Department, Navy Department, Department of Commerce, and interested and related civilian activities assures the participants in the program of authentic guidance.



Washington, D. C., August 28, 1942

Secretary of War

The Navy Department needs young men who are physically and morally sound and who have been thoroughly instructed in the fundamentals of English, mathematics, and the physical sciences. In addition, any specialized training of an occupational character which youth may receive will stand them in good stead in the Navy.

Because the High-School Victory Corps emphasizes both basic education and technical-vocational specialization, the Navy Department feels that it will be an organization of great value both to the youth concerned and to the Nation in this war emergency.

May I wish for this important undertaking the greatest of success in this difficult and grim period of our country's history.

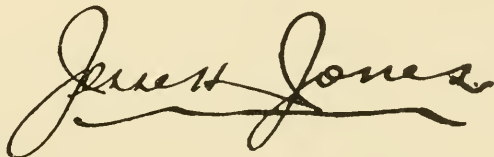
A handwritten signature in dark ink, reading "Frank Knox". The signature is fluid and cursive, with a large initial "F" and a long, sweeping underline.

Washington, D. C., August 27, 1942

Secretary of the Navy

For a number of years the Department of Commerce, through the Civil Aeronautics Administration, has been active in a program designed to prepare young people for the new air age. Its pilot training facilities are now employed in the training of military and naval aviation personnel. Consequently, this Department looks with favor upon the High-School Victory Corps being established by the Office of Education as a means by which many young people in high school may receive preliminary training for aviation which will help equip them for playing their part in the war effort and the future of aviation.

The Civil Aeronautics Administration is prepared to collaborate to the fullest extent with the Office of Education and the War and Navy Departments in the development of the new program.

A handwritten signature in dark ink, reading "Ernest Jones". The signature is cursive and elegant, with a large initial "E" and a long, sweeping underline.

Washington, D. C., August 31, 1942

Secretary of Commerce

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FOREWORD

EACH succeeding day drives home the realization that our country faces a long and arduous struggle. April's easy optimism has paled. The Nazis have not collapsed from within. Nor have they exhausted themselves upon the vast Russian battlefields. Japan entrenches in Asia.

Autumn presents the American people with cold stark facts. This war will be a hard war; a war demanding every ounce of energy and sacrifice and devotion we can muster. It will hardly be won before the end of 1943 or 1944. It may continue till 1945 or 1946. It may ultimately require an armed force of 10,000,000 men. It is probably only a question of time, therefore, before public demand forces amendment of the Selective Service Act to take young men 18 or 19 years old for military service.

We are engaged in a war for survival. This is a total war—a war of armies and navies, a war of factories and farms, a war of homes and schools. Education has an indispensable part to play in total war. Schools must help to teach individuals the issues at stake; to train them for their vital parts in the total war effort; to guide them into conscious personal relationship to the struggle.

Students in the Nation's 28,000 secondary schools are eager to do their part for victory. To utilize more fully this eagerness to serve, to organize it into effective action, to channel it into areas of increasingly critical need, the National Policy Committee recommends the organization of a Victory Corps in every American high school, large or small, public or private.

The Policy Committee urges the organization of the Victory Corps as a high-school youth sector in the all-out effort of our total war, a sector manned by youth who freely volunteer for present service appropriate to their experience and maturity, and who earnestly seek preparation for greater opportunities in the service which lies ahead.

The plan of organization recommended is voluntary in character. It is democratic in initiation and management through school officials and advisory councils of students, teach-

ers, parents, and citizens of local communities. High-school students of all races, colors, or creeds may become members of the High-School Victory Corps. It recommends a national pattern but does not establish a national organization as such. It is basically an educational plan to promote instruction and training for useful pursuits and services critically needed in wartime.

In promoting the wartime organization of high-school students on a Nation-wide basis, the Policy Committee is not unmindful of the fact that much has already been accomplished in thousands of high schools to mobilize students for war-related preparation and service. The Victory Corps is simply a plan which in this time of national peril and of national effort creates a Nation-wide framework of organization into which schools may, if they desire, fit their various existing local student war organizations. State and local leadership is being invited to cooperate in following a national pattern which gives ample scope to local initiative and vision.

The recommendation for "the establishment in each secondary school of a school-wide organization consisting of all pupils who are engaged in war services or preparing for participation in the war effort" was originally made to and unanimously approved by the U. S. Office of Education Wartime Commission.* In the further development of that recommendation the National Policy Committee, representing the War Department, the Navy Department, the Civil Aeronautics Administration of the Department of Commerce, the U. S. Office of Education Wartime Commission, and civilian aviation interests, has given liberally of its counsel and suggestion. Grateful acknowledgment should also be made of the impetus already given to aviation education by the Civil Aeronautics Administration and by the Air Training Corps of America.

The National Policy Committee has given its hearty endorsement of the plan outlined herein and will, of course, continue to carry its responsibility for the development of the program of the Victory Corps until the present world-wide struggle for freedom is won.


U. S. Commissioner of Education

Washington, D. C., August 1942

*See appendix C for the full statement of the Wartime Commission.

National Policy Committee For The High-School Victory Corps

EARLY in the summer of 1942 a special committee of the U. S. Office of Education Wartime Commission began a study of the general problem of Wartime Service Organizations in Secondary Schools. On July 15 and 16 the Assistant Secretaries of War and Navy for Air and the Special Aviation Assistant to the Secretary of Commerce, in writing, endorsed a proposal under which the U. S. Office of Education would assume the official responsibility for the Federal Government in developing an organization and a program of aviation education in the high schools of the country. At its meeting on July 22, the Wartime Commission with very few of its members absent, unanimously approved a report of the special committee referred to above.*

As a consequence of the proposal endorsed by the three departments and of the action taken by the Wartime Commission, the Administrator of the Federal Security Agency requested the Secretaries of the War, Navy, and Commerce departments to designate their official representatives on a policy committee to assist in the development of a plan for the wartime readjustment of the organization and curricula of secondary schools. The Administrator also invited some additional persons to serve on this committee. The High-School Victory Corps is the plan worked out and is herewith recommended to schools throughout the country by the Policy Committee. The members of this committee are:

War Department

Lt. Col. HARLEY B. WEST, War Department General Staff, G-3 Division;
Maj. FRANCIS PARKMAN, Office, Director of Individual Training, Headquarters, Army Air Forces.

Navy Department

JOSEPH W. BARKER, Special Assistant to the Secretary of the Navy.
Lt. Comdr. MALCOLM P. ALDRICH, representing the Office of the Assistant Secretary for Air, Navy Department.

*See Appendix C.

Department of Commerce

Civil Aeronautics Administration.

WILLIAM A. M. BURDEN, Special Aviation Assistant to the Secretary of Commerce.

U. S. Office of Education Wartime Commission

SELMA M. BORCHARDT, Washington representative of the American Federation of Teachers.

L. H. DENNIS, Executive Secretary, American Vocational Association.

PAUL E. ELICKER, Executive Secretary, National Association of Secondary School Principals.

WILLARD E. GIVENS, Executive Secretary, National Education Association.

Civilian Aviation

FRANK A. TICHENOR, Chairman of the Aeronautical Advisory Council, Department of Commerce, Publisher "Aero Digest."

Why Organize a Victory Corps In High Schools

There Is a War To Be Won

There is a war to be won; a war for survival; a war which demands unstinted work and sacrifice and devotion of every one of us.

Our war effort must be a balanced effort. Our armed forces require a balance in our air forces, our ground forces, our Navy. Against our output of weapons and equipment we must match merchant ships with which to transport them. Against growing armies in training we must match growing armament, guns, tanks, planes, jeeps, ammunition. We must match production for military needs against production of the necessities of civilian life. Housing and fuel and clothing must be provided for home-front workers. Crops must be grown with which to feed ourselves and our Allies.

The grim, stark situation we face today permits of no wishful thinking, no mental hide-out in the hope of carrying on as we have always carried on the routines of our daily lives. The most important test of every day's decisions must be this: What can we do to hit the enemy harder; to contribute to his destruction? If what we are doing is not clearly an immediate or remote contribution to winning this war, then we should not be doing it.

War is a hard, tough, brutal business. It is blood and sweat and tears, but it must be faced. We are in this war and the only way out is through: through to survival for all that we hold dear. Our hope, our resolve, our determination is that out of victory in this war we may win the opportunity to make a better world: a world in which free men may walk erect.

Let us not forget what happens to youth

when the Nazi slave drivers are in position to crack the whip. Consider that more than 3,000,000 youngsters from the Balkan States have been rounded up for compulsory labor service (slavery) in Germany; that Gestapo agents in Belgium have been kidnaping mere boys for military service. We don't want that to happen here. That's why we mean to win this war for survival.

The High Schools Are a Potential Source of Trained Manpower

Wars are won by men using matériel. The manpower requirements for winning this war are tremendous. According to the War Manpower Commission, we shall have some 4,500,000 men under arms by the end of the year; in 1943 some 6 or 7 million; and eventually we may have as many as 10,000,000. That will mean that practically every able-bodied male, 18 to 45 years of age, must be ready for service in our armed forces. That means that a large majority of the boys of 16 and 17 years now in our high schools must be prepared for military occupations.

A modern army is made up of specialists. Out of every 100 soldiers, 63 are specialists: Mechanics, machine gunners, radio operators, cooks, sanitary technicians, nurses, motorcycle drivers, motor repairmen, etc. At the present time our growing Army is in critical need of many more specialists than are being recruited by the draft. Training facilities within the armed forces themselves have been stepped up but are still inadequate to train with sufficient rapidity the enormous numbers of specialists needed. The Army and

Navy must use to the fullest possible extent the facilities of our trade and vocational schools, of our general high schools, of every training institution in the Nation for preliminary preparation of auto mechanics, male nurses, radio repairmen, radio operators, machinists, surveyors, instrument repairmen, typists, and a host of other specialists.

The High Schools Should Prepare Youth for War Production and Essential Community Services

The manpower needs of the armed forces are pyramiding. So also are the manpower needs of war production. According to the War Manpower Commission we must have a force of 20,000,000 persons in direct war production and transportation in 1943; we may need 12,000,000 in the fields to harvest 1943's crop. The younger able-bodied males will be in the armed forces. The war production labor forces must more and more be recruited from girls, women, and older men.

This means that many girls now in high schools should be preparing for industrial occupations and for agriculture. Others should be preparing to take the place of men in stores and offices and in essential community services so important in maintaining health and stability under the stress and strain of war. The high schools have a definite responsibility insofar as possible to prepare these girls for the tasks and responsibilities which lie ahead, including those in the home.

A realistic appraisal of our need for trained manpower, both in the armed forces and in war production, makes it evident that the high school can't go on doing business as usual. High-school youth are impelled by patriotic considerations to point their training to preparation for war work, to tasks requiring skill of hand and strength of body, coupled with intelligence and devotion. The 28,000 high schools of the Nation with their 6,500,000 students should speedily undertake the adaptation of their curricula and of their organizations to train youth (and adults, also) to do their part in the victory effort.

What Are the Objectives of the High-Schools' Wartime Program Which the Victory Corps Promotes

All over the country secondary schools are organizing their classroom offerings, their extraclass activities, and their guidance and personnel programs to further the war effort. Two objectives of the high-schools' wartime program to which the Victory Corps is related are: (1) The training of youth for that war service that will come after they leave school; and (2) the active participation of youth in the community's war effort while they are yet in school. The first seems closer to what goes on in school classrooms and shops; the second to the out-of-class activities of students. The Victory Corps organization takes account of both.

Whether curricular or extracurricular in character, the objectives of the high-schools' wartime program which the Victory Corps will foster and promote are:

1. *Guidance into critical services and occupations:* To keep youth currently informed concerning the critical manpower needs of the Nation in its Armed Forces and civilian pursuits and how to prepare for entrance into services or occupations in which critical needs exist; to encourage all pupils to choose wisely some phase of the national war effort to which they can give of themselves immediately.

2. *Wartime citizenship:* To strengthen and redirect the required studies in the school curriculum which are basic to citizenship training for American life; in this connection

to insure a better understanding of the war, its meaning, progress, and problems.

3. *Physical fitness:* To strengthen and redirect the health and physical training programs so as to make the greatest possible number of high-school pupils physically fit.

4. *Military drill:* To provide voluntary and properly conducted military drill, in uniform where possible, for prospective members of the armed forces.

5. *Competence in science and mathematics:* To increase the number of students studying science and mathematics courses basic to the war effort and to improve the quality of scholarship in these courses.

6. *Preflight training in aeronautics:* To provide special courses and activities for the preliminary training of prospective aviation cadets and ground crew maintenance men.

7. *Preinduction training for critical occupations:* To insure an adequate supply of young people who have some preliminary training for critical wartime occupations in the air forces, the land forces, the naval forces, and in productive civilian life; in connection with the latter to assist in meeting immediate manpower shortages which exist within communities through part-time work-and-school programs.

8. *Community services:* To prepare selected young people for work in essential service occupations of civilian life, including business, homemaking, and the professions; in this connection to prepare young people to render immediate volunteer service in civilian defense, care of young children, home nursing, and other service activities requiring some initial training.

Guidance Into Critical Services and Occupations

In a total war it is of utmost importance that each person be engaged in that task in which he can make the most effective contribution to the war effort. Never before have those who are responsible for the guidance of youth been faced with a greater challenge. Guidance as it exists in a peacetime program cannot meet the critical needs of the hour.

Among the foremost of these are the needs of the air forces of the Army and Navy. To meet the requirements of the great sky armada which is projected, from 30 to 40 percent of the boys now in the last 2 years of the high schools will probably be needed. School counselors must help guide qualified youth toward the Air Service.

There are other manpower priorities that must be established to meet critical needs. The U. S. Office of Education, in collaboration with the War Manpower Commission, the War Department, and the Navy Department, has in preparation charts and other publications which will assist schools in advising students concerning the manpower needs in critical occupations and in the armed forces.

Wartime Citizenship

One of the major and continuing responsibilities of the secondary school is the training of youth for citizenship in a democracy. This responsibility is particularly heavy in wartime.

English.—Both formal courses and informal service activities need now to be redirected for wartime citizenship training. Special emphasis must be placed in English courses upon the development of fundamental reading skills; upon clear, correct, and concise oral and written expression. The literature of patriotism and American idealism, of current events and war problems, should find its way in larger measure into the English course.

Social studies.—In the social studies field there is general need for continuity of learning, for new materials and a new emphasis upon wartime problems. There should be: More positive teaching of the meaning of democracy, of our history, heroes, and traditions, of the duties and responsibilities as well as the privileges of citizenship, of our American neighbors both north and south, of our Allies in the United Nations.

There should be instruction in wartime economics, in rationing, conservation, and other matters of consumer education; in problems of war financing and inflation control.

New geographic concepts more appropriate for an air age must be developed. Polar projection maps should be studied, time and distance factors in land, sea, and air transportation emphasized. Latitude and longitude, meridians and parallels should be understood; location and importance of the world's natural resources reviewed.

Students should learn of the organization of their Government in wartime; of the organization of the armed forces; of Selective Service regulations.¹ They should keep in touch with the progress of our war effort, with the course of the war, and with the pronouncements of responsible Government officials concerning post-war objectives.

Physical Fitness

A basic objective of the high-schools' wartime program must be the effort to make the greatest possible number of pupils physically fit to carry on as members of the armed forces or as efficient workers. According to the military training authorities the high-schools' program for boys should stress aggressiveness, strength, endurance and muscular coordination. Motor skills and neuro-muscular coordinations can be developed in a variety of ways: Formal calisthenics and body-building exercises; running, jumping, climbing, tumbling, wrestling; competitive team sports and games requiring bodily contact; marching; hiking, swimming, rhythmic dancing. Every high-school boy and girl should participate in the program of physical activities appropriate to his or her abilities and needs. Whether for boys or girls important aspects of the physical fitness program must be periodic health examinations, correction of remediable physical defects, nutrition schedules, safety education, first aid, and knowledge of personal, community, industrial and military hygiene. In this program the school must

solicit all the aid and cooperation which various health agencies of the local community can muster.²

Military Drill

One of the objectives of the Victory Corps is voluntary military drill. Properly conducted, military drills and parades offer certain definite advantages. Among these are the development of correct posture and ease of carriage; mental and physical coordination; the habit of immediate and unquestioned obedience to proper authority; cleanliness, neatness and alertness, which combined are described as military smartness; the development of cooperative and associated effort called teamwork. In addition, as time permits, the rotation of student officers and noncommissioned officers affords practical experience in command and encourages the development of leadership qualities.

Improperly directed and conducted, drills are not only a waste of time but fix undesirable habits and attitudes in the student.

If drills are to be properly conducted certain difficulties must be anticipated and overcome. A drillmaster, with a staff of assistants, must be selected and trained. The requirements are both personal and professional. Personal appearance should exemplify the smartness of the soldier. The drillmaster's voice, his sense of cadence and timing, will considerably influence his value. He should have a practical and thorough knowledge of modern infantry drill, acquired by recent experience or by study and practice under competent critics.³

¹ The U. S. Office of Education is preparing a publication to be ready in the autumn entitled, *Our Armed Forces*. Look for definite announcement in *EDUCATION FOR VICTORY*, biweekly publication of the U. S. Office of Education.

² In response to many urgent inquiries from school officials asking for detailed recommendations for a school physical fitness program which will serve wartime military and other needs, the Office of Education will publish this fall the Victory Corps Physical Fitness Manual developed in collaboration with representatives of the armed forces, the Public Health Service and physical educators.

³ The U. S. Office of Education plans to publish this autumn a *Victory Corps Manual on Military Drill*, prepared in collaboration with the armed forces. More detailed suggestions concerning the proper conduct of military drills in high schools will be given in this manual.

The ability to command respect and maintain discipline among the students is essential.

The lack of arms must be anticipated. Proper drill is more difficult without the rifle or a reasonable replica. This lack will entail extra effort and closer supervision.

Uniformity of dress is an aid to precision drills. Without such dress the maintenance of neatness and cleanliness in a group of students requires much greater effort. The cost and lack of priority ratings with which to secure them may make complete uniforms difficult to procure in some communities, but even a single uniform article, such as a cap, is helpful in fostering the esprit de corps.⁴

The armed forces recognize the value of military drills when properly conducted. However, neither the Army nor the Navy will be in a position to supply instructors or equipment to aid in this program.

Basic Training in Mathematics and Science

Modern war is a battle of technicians and specialists, both in the combat forces and in the armies of workers on the home front. Much of the basic language of the technician is derived from mathematics and science. Some of the major objectives of a wartime program in mathematics and science are:

1. To inject definiteness of purpose and new drive for mastery into the conduct of existing courses.

2. To emphasize those parts of existing courses which have real value in meeting wartime needs of pupils.

3. To find present and real applications of principles in the military or production areas to use wherever possible.

4. To develop new or emergency courses which may serve the needs of youth who have a short time to prepare themselves for entry into a specific field of military or civilian service.

5. To plan refresher and supplemental opportunities for pupils who have not recently studied such subjects as arithmetic or physics and will soon have need to use skills and understandings related to them.

6. To devise means by which individual pupils or small groups within a more general class or course may direct their emphasis and study toward the special requirements of the field of work they are preparing to enter.

Adapting mathematics and science.—It is apparent that the high school must know much about the requirements of the jobs for which mathematics and science are basic, and must help the pupil to make decisions as to the type of war occupation for which he expects to prepare. The mechanic may have little need for algebra or trigonometry but may have critical need for skill in the fundamentals of arithmetic applied to shop problems. The girl or boy who enters any of the many types of work with radio and communications may have definite need for recently studied or reviewed information in applied physics. The high school, therefore, can serve youth and the national need by discovering the basic training necessary for successful entry into war occupations and altering or pointing the study in mathematics and science toward the requirements of the youth enrolled in those courses.

⁴ Suggestions concerning uniforms will be found on page 19 and in appendix A.

Preflight Training in Aeronautics

In this war the air services are taking an exceedingly important part. To meet the anticipated needs of the Army and the Navy air forces, there is every indication that all qualified boys in the junior and senior classes of the high school must be considered as potential candidates for aviation training. It is of great importance, therefore, that every boy who meets, or who has a fair chance of meeting, the stringent physical and mental qualifications established for admission to aviation-cadet training be given the opportunity to receive preflight training in aeronautics. Such training will facilitate the completion of either the Army or Navy aviation-cadet training program.

Aviation cadets.—The term “aviation cadet” is sometimes loosely used as referring only to men training to be flying officers, i. e. pilots, bombardiers, gunners, or navigators. The term properly includes also men training in the Army Air Forces to be ground officers in armament, communications, engineering, meteorology, and photography. The latter have somewhat lower physical requirements than the flying officers but have higher educational requirements. Boys who aim for this ground officer training should plan their high-school courses to qualify for engineering school or the pre-engineering department of a liberal arts college. The course in preflight aeronautics would be helpful but hardly immediately necessary. They might as profitably have mechanical drawing and shop work in their high-school program of studies.

The present urgent need is for flying officer candidates. For these the preflight aeronautics course is recommended by the aviation training authorities.

In addition to flying officer candidates, there is urgent need for men to service, repair, and maintain the military planes on the ground. For youth who are candidates for this type of work in the air forces, the course in aeronautics, although generally helpful, would not be as valuable as would be certain vocational shop courses.

One of the most important activities of the Victory Corps is concerned with preflight training which includes: physical conditioning, basic mathematics and science, preflight aeronautics, and military drill. This training should be given to every eligible boy. Such eligibility will need to be established in order that the aviation training facilities of the school may be most effectively used.⁵

Preflight aeronautics courses.—Because of differences in the size of various schools and adequacy of training personnel, the organization of preflight aeronautics courses will necessarily differ in different communities.⁶

In small schools where it is not possible to organize a regular class in aeronautics, qualified students may carry on special individualized study of aeronautics, using self-study material under teacher guidance. In larger schools it may be possible to organize a class in aeronautics from a combined group of grades 11 and 12 pupils. Such a class group could make use of the regular aeronautics course materials designed for class use.

⁵ See Leaflet 62, *Pre-Aviation Cadet Training in High Schools*, available from the U. S. Office of Education, Washington, D. C., for a description of requirements for aviation cadet training. The U. S. Office of Education has in preparation a Victory Corps Aeronautics Aptitude Test, complete with manual, answer sheets, score sheets, and report forms, availability of which from the Superintendent of Documents, Washington, D. C., will be announced in an early issue of *EDUCATION FOR VICTORY*, bi-weekly publication of the U. S. Office of Education.

⁶ See Leaflet 63, *Pre-Flight Aeronautics in Secondary Schools*, for a more detailed discussion of content of aeronautics courses and methods of organizing. Available from the U. S. Office of Education, Washington, D. C.

In most large schools it will be possible to establish two general groups, one made up of senior class pupils and one of junior class pupils. The senior class pupils would cover as much of the subject matter included in the aeronautics courses as would be possible within the limits of a school year. The junior class pupils would begin a planned 2-year sequence in the study of aeronautics and also those sequences of science and mathematics which are offered by the school and are appropriate for aviation training. The air services of the Army and Navy do not suggest that students take preflight aeronautics *in place of* fundamental training in mathematics and physics, but only after or concurrently with such training.

In addition to enrollment in organized courses giving general preparation for flight training, each member will also participate in extracurricular activities which are directly related to the field of aviation.

Preinduction Training for Critical Occupations

Armed forces.—Certain minimum standards of basic education are requisite for members of the armed forces. For example, the Army requires that inductees have at least a fourth-grade education. A good general high-school education is an advantage to a young man entering the armed forces. Especially valuable is a knowledge of mathematics and science, as well as sound training in English and the social studies; while physical fitness is of the utmost importance to the soldier or sailor. If in addition, youth have had the opportunity to pursue studies which are more definitely geared to the specialties of modern mechanized warfare so much the better.

In order to make use of the available training facilities of the Nation's secondary

schools for the preinduction training of young men who are or will soon be eligible for military service, the Civilian Personnel Division, Army Services of Supply, is requesting that as many high schools as can possibly do so offer courses to boys in the last year or two of schooling which provide preliminary preparation for the specialist training to be given on a post-induction basis by the Army itself. Five courses have already been developed in outline form, based upon an analysis of the Army Technical and Field Manuals. These courses are: Fundamentals of Radio, Fundamentals of Electricity, Fundamentals of Automotive Mechanics, Fundamentals of Machines and Fundamentals of Shop Work. Other course outlines will be prepared in the near future and made available to the high schools through the U. S. Office of Education.

War production.—In the next few months the mounting need for workers in war production industries and in agriculture will become more critical. Thousands of additional girls and women will be called to service in factories manufacturing aircraft, munitions, and special war equipment. Eventually we may approach the British situation where a majority of workers in war production industries are women and girls.

The high schools should encourage girls to prepare for work in war industries by offering short courses to develop the particular skills required for initial employment. Such training should be given as near the school-leaving time as possible, in order that skills developed may not become rusty before being used.

The use of training facilities and equipment by schools fortunate enough to possess them will make war production training programs for both boys and girls comparatively easy to organize. When facilities

do not exist in the schools, arrangements may often be worked out with employers for cooperative part-time programs of work and schooling.

Not only are planes and tanks and guns needed in wartime. Food is essential also. It is highly probable that many more girls will be needed to take the places of men drawn from the farms to serve in the armed forces. This means that the high schools, urban and rural, have a responsibility to provide training for agricultural aides, whether among farm girls, or city girls. Instruction in farm management, in poultry-raising, in the operation of farming equipment should be provided for many more girls in the year ahead.

In all courses of a preparatory or pre-induction character whether for the armed forces, war production industries, or for agriculture, sound principles of vocational education should be observed. The job or occupation for which training is given should be analyzed and the training adapted to the job requirements. Sufficient practice should be afforded to develop necessary manual skills. Related subjects such as drawing, science, and mathematics should not be neglected. Each youth should have opportunity to progress as rapidly as his or her individual ability permits.

Community Services

Not all of the Nation's workers will be employed in war production industries or in agriculture. Nor will all young men be serving in the armed forces. The essential occupations of civilian life must be continued. Transportation services, distribution services, professional services, homemaking and other occupations will need a certain number of new recruits annually.

The high schools have a responsibility to help young people to choose the fields of service for which they are adapted and to secure preparatory training therefor. Business education, homemaking education, preparation for college and professional training have their proper place in the high schools' wartime program.

One aspect of the responsibility of the school for education for community service occupations and tasks deserves special mention. During the war there will be opportunity for both paid and voluntary community services of a special character for which some initial training may be given in high schools. Short courses, or the inclusion of units in regular courses, dealing with aircraft spotting, building of scale model aircraft, care of young children, home nursing, gardening, air raid warden service and many others should find their way into the schools' wartime curriculums.⁷

⁷ Look for announcement of suggested outlines of courses and other teaching aids in community service fields in *EDUCATION FOR VICTORY*, biweekly publication of the U. S. Office of Education.

These illustrations show exact sizes of the insignia

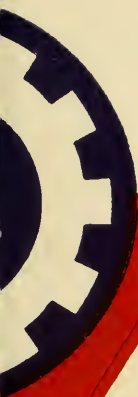


***General
Membership***

HIGH-SCHOOL VICTORY



***Land
Service
Division***



***Production
Service
Division***



***Community
Service
Division***

CORPS INSIGNIA



***Air
Service
Division***



***Sea
Service
Division***

Application For General Membership In The

VICTORY CORPS

Date _____

I, _____

Name

Grade

Age

School

hereby make application for general membership in the Victory Corps. In making this application I pledge myself, if accepted for membership, to strive to be worthy of wearing the general insignia of the Victory Corps. I will efficiently perform any community war services within the limits of my ability and experience; and I will diligently seek to prepare myself for future service whether in the armed forces, in war production, or in essential civilian occupations.

In evidence of my present qualifications for general membership in the Victory Corps I submit the following statement of my program of studies and of my extracurricular activities and community services related to the Nation's war effort.

Program of Studies

**Extracurricular Activities and
Services Related to the War Effort**



Remarks _____

Approved _____

Parent or Guardian

Approved _____

Principal or School Director of Victory Corps

To be retained in the school

Plan of Organization of the Victory Corps

The Victory Corps is proposed as a Nation-wide wartime student organization for secondary schools. It is democratic and voluntary in character. Youth are invited to participate as equal partners in the war effort. They are asked to select their areas of special service and to help plan their programs of study and extra-class activity. High schools are given opportunity to affiliate their present student organizations in one great Nation-wide pattern of organization which will serve to stimulate and channel youth's enthusiasm, by giving recognition for appropriate war preparation and services.

Basis for General Membership in the Victory Corps.

Any and all students enrolled in a secondary school who, in the judgment of the principal, headmaster, or other designated authority, meet the following simple requirements may be enrolled as general members of the *Victory Corps*.

1. The student should be participating in a school physical fitness program appropriate to his abilities and needs in the light of his probable contribution to the Nation's war effort.

2. The student should be studying or have studied school courses appropriate to his age, grade, ability, and probable immediate and future usefulness to the Nation's war effort, within the limits of the facilities of the school.

3. The student should be currently participating in at least one important continuing or recurring wartime activity or service of the types indicated in the suggestive list of Victory Corps service activities:

Air warden, firewatcher, or other civilian defense activity.

U. S. O. volunteer activities.

Red Cross services.

Scale model airplane building.

Participation in health services, such as malaria control.

Farm aid, or other part-time employment to meet manpower shortages.

School-home-community services, such as salvage campaigns, care of small children of working mothers, gardening, book collection, etc.⁸

Any student enrolled in a secondary school may make application for general membership in the Victory Corps by submitting to the principal or other appropriate official of the School Victory Corps an application blank,⁹ illustrated on the opposite page.

Upon acceptance for general membership in the Victory Corps the student shall be privileged to wear the general insignia of the Victory Corps.¹⁰

Each high school will seek to secure the maximum general membership in the Victory Corps. All students will usually be able to qualify as members. General membership will have meaning only if it represents active student participation in the war effort. School assemblies, rituals of induction into membership, participation in

⁸ See appendix B for a more extensive list of Suggested Extra-curricular and Service Activities of Victory Corps Members.

⁹ To be duplicated by the school and retained in the school or school system.

¹⁰ See pp. 12 and 13 for Victory Corps insignia.

parades, and other community ceremonies are among the means for giving recognition to members of the Victory Corps. In arranging for assemblies and ceremonies the services of members of the armed forces, veterans groups, and community organizations should be solicited.

Divisions of the Victory Corps

Students who have been accepted for general membership in the Victory Corps may (during their last year or two of schooling) be organized into special service divisions of the Victory Corps. In order to provide for uniformity throughout the Nation in the organizational pattern of such special service divisions, *five divisions* are provided for:

Air Service Division
Land Service Division
Sea Service Division
Production Service Division
Community Service Division

It must be clearly understood, and clearly explained to the students, that qualifications for membership in the air, land, and sea service divisions are in no sense official requirements for admission to the Army, Navy, or Air services. The qualifications represent simply the general consensus of the National Policy Committee as to what constitutes the most effective preparation for these services within the framework of a high-school curriculum.

Air Service Division

In order to qualify for membership in the Air Service Division of the Victory Corps the students must be planning and have begun preliminary preparation for service in the armed forces as aviation cadets or as air-

craft repair and maintenance workers. Evidence of such plans and preparation will be at least three of the following:

a. Must have pursued or be pursuing a program which includes 1 year of high-school physics and 3 years of high-school mathematics.

b. Must have pursued or be pursuing a course in preflight aeronautics.¹¹

c. Must have pursued or be pursuing a course in automotive mechanics, radio, electricity, or a vocational shop course which gives preliminary preparation for the servicing, maintenance or repair of aircraft.

*d. Must be participating in a program of physical fitness.

e. Must be participating in a program of military drill.¹²

(NOTE.—See page 9 for a general explanation of the requirements for flying officers, ground officers, and ground crew maintenance men. Although it is the intention of the Air Service Division to concentrate upon preliminary preparation of prospective flying officers and prospective ground crew maintenance men, other youth whose programs seem definitely pointed to preparation for work in aviation as ground officers ought not be excluded. The potential flying or ground officer should qualify under *a, b, d*, and if military drill is provided in the high school, under *e* as well. (In the case of otherwise qualified seniors, suitable refresher or telescoped courses in mathematics and physics may be substituted for *a*.) The potential ground crew maintenance man should qualify under *b, c, d*, and if military drill is provided in the high school, under *e* as well.)

¹¹ See U. S. Office of Education Leaflet 63, *Pre-flight Aeronautics in Secondary Schools*, for an outline of content for a preflight aeronautics course designed for the preliminary preparation of prospective aviation cadets.

¹² See p. 7 for statement regarding military drill in high schools.

*Required of all members of the Air Service Division.

Members of the Air Service Division of the Victory Corps will wear the special insignia of their division.¹³

Land Service Division

Members of the Land Service Division should be planning and have begun preliminary preparation for service in some branch of the ground forces of the Army. Evidence of such plans and preparation will be at least three of the following:

**a.* Must have pursued or be pursuing a program which includes at least 1 year of high-school mathematics, or its equivalent in shop mathematics.

b. Must have pursued or be pursuing a program which includes at least 1 year of high-school laboratory science, or its equivalent in shop science.

**c.* Must be participating in a program of physical fitness.

d. Must have pursued or be pursuing a program which includes one or more special preinduction courses.¹⁴

e. Must have pursued or be pursuing a program which includes one or more shop courses.

f. Must be participating in a program of military drill.¹⁵

¹³ See pp. 12 and 13 for Victory Corps insignia.

¹⁴ See p. 10 concerning outlines of preinduction training courses.

¹⁵ See p. 7 for statement regarding military drill in high schools.

*NOTE.—Required of all members of the Land Service Division.

Members of the Land Service Division of the Victory Corps will wear the special insignia of their division.¹⁶

Sea Service Division

Members of the Sea Service Division should be planning and have begun preliminary preparation for service in some branch of the Navy or Merchant Marine (other than naval aviation). Evidence of such plans and preparation will be at least three of the following:

**a.* Must have pursued or be pursuing a program which includes courses in high-school mathematics, preferably through plane trigonometry.

b. Must have pursued or be pursuing a program which includes at least 1 year of high-school laboratory science, preferably elementary physics.

**c.* Must be participating in a program of physical fitness.

d. Must have pursued or be pursuing a course in the elements of navigation.

e. Must have pursued or be pursuing one or more shop courses.

f. Must be participating in a program of military drill.¹⁷

Members of the Sea Service Division will wear the special insignia of their Division.¹⁸

¹⁶ See pp. 12 and 13 for Victory Corps insignia.

¹⁷ See p. 7 for statement regarding military drill in high schools.

¹⁸ See pp. 12 and 13 for Victory Corps insignia.

*NOTE.—Required of all members of the Sea Service Division.

Production Service Division

Members of the Production Service Division should be planning and have begun preliminary preparation for service in war industry, agriculture, or other essential civilian productive occupations, as distinguished from service occupations. Evidence of such plans and preparation will be at least three of the following:

a. Must have pursued or be pursuing a program which includes courses which are definitely pointed to preparation for work in the field of agriculture.¹⁹

b. Must have pursued or be pursuing a program which includes courses which are definitely pointed to preparation for work in the field of trades and industry.²⁰

*c. Must be participating in a physical fitness program.

d. Must have engaged or be engaging in part-time work, either paid or voluntary, in some form of production.

e. Must be participating in a program of military drill.²¹

Members of the Production Service Division of the Victory Corps will wear the special insignia of their division.²²

¹⁹ Courses preparing for admission to agricultural, engineering, or technical institutions of higher education are meant to be included here.

²⁰ Ibid.

²¹ See p. 7 for statement regarding military drill in high schools.

²² See pp. 12 and 13 for Victory Corps insignia.

*NOTE.—Required of all members of the Production Service Division.

Community Service Division

Members of the Community Service Division should be planning and have begun preliminary preparation for work in community or other service occupations, such as: Teaching, social work, medicine, nursing, dentistry, librarianship, or other professional services; stenographer, typist, bookkeeper, salesman or other distributive or commercial service; homemaking, child care, home nursing, nutrition or similar service. Evidence of such plans and preparation will be at least three of the following:

a. Must have pursued or be pursuing a program which includes courses definitely pointed to preparation for service occupations at the professional level.²³

b. Must have pursued or be pursuing a program which includes courses definitely pointed to preparation for commercial, distributive, homemaking or similar community service occupations to be entered upon leaving high school.

c. Must be engaging in some form of part-time work, either paid or voluntary, in some form of community service.

*d. Must be participating in a program of physical fitness.

e. Must be participating in a program of military drill.²⁴

Members of the Community Service Division of the Victory Corps will wear the special insignia of their division.²⁵

Insignia

Insignia for the High-School Victory Corps, including its various special service divisions, should be worn on a Victory Corps cap of uniform design.²⁶ The insignia may

²³ Courses preparatory for entrance to colleges and universities are meant to be included here.

²⁴ See p. 7 for statement regarding military drill in high schools.

²⁵ See pp. 12 and 13 for Victory Corps insignia.

²⁶ See appendix A for directions for making the Victory Corps cap.

*NOTE.—Required for all members of the Community Service Division.

also be worn on arm bands, or upon the front pocket or sleeves of shirts, blouses, or sweaters. Approved positions for wearing the Victory Corps insignia should be uniform for any particular community.

Insignia may be purchased by the schools from commercial firms or made in the school itself or at home. The advantage of purchase is that it will insure uniformity of insignia. This insurance may outweigh the slight saving that might result from making the insignia in the school or at home.

The silk screen stencil process lends itself to the making of arm bands carrying the insignia of the Victory Corps. The insignia might be produced on white cloth, such as felt, cotton, muslin, oil cloth, etc. In many communities the art departments of the school are equipped with silk screen outfits. For schools not so equipped, commercial art firms can be found to do the work.

Another method of producing insignia might be to cut them from colored cloth such as cotton, sateen, or felt, using materials with fast colors in all instances. The more detailed parts of the designs for the Sea and Production Service Division will have to be embroidered.

Uniforms

A High-School Victory Corps in making public appearances may wish to have some further identification than merely the insignia worn on the Victory Corps cap, or on an arm band, or on regular school clothing. Due to the shortage of materials for uniforms and the need for conservation, no elaborate uniforms are recommended. It is recommended, however, that the Victory Corps cap be worn on all occasions of public

appearance and as the minimum article of uniform in military drills or parades. If it is desired to present a uniform appearance in parades, in addition to the cap, members of the Victory Corps might, in the case of the girls, wear light waists and dark skirts; and, in the case of the boys, wear light shirts and dark trousers.

It is recognized that uniform dress is an aid to precision drills and that some simple uniform is desirable where it can be provided. Suggested specifications for a simple uniform may be secured by writing to the U. S. Office of Education. Communities should delay any contemplated purchase of uniforms until receiving these specifications, covering general design, preferred colors, and materials. Uniforms should not be made of critical types of cloth. They need not be the same as to color and material in different communities. Any competition between communities in the matter of elaborate uniforms should be avoided.

In case it is decided in any community to provide simple uniforms for members of the Victory Corps, the recommendation of the National Policy Committee is that they should ordinarily be worn only when engaged in drills or special public appearances.

Some Administrative Considerations

Small Schools

The nature and number of special service divisions which can be represented in any school will depend upon a number of varying factors such as the size of school, its location, equipment, the character of its curriculum, etc. Unless it is possible to meet fairly definite criteria such as those enumerated above for the special service divisions of the

Victory Corps there should probably be no attempt in a particular school to set up special service divisions. The justification of special service divisions is simply that these divisions do imply concentration in the student's program of studies as related to the war effort.

To illustrate, some small schools may be unable to provide specialized courses. Not every school can give organized courses in the fundamentals of radio, in machine shop practice, etc. However, some of these schools might find it possible to extend their curricula in terms of part-time diversified occupational training, i. e., in which students spend half time working in some shop, factory, or store in the community and half time in related study in the school. Unused facilities such as a local blacksmith shop or a garage repair shop might be leased by the school and used for small group instruction under the direction of a skilled workman.

Extracurricular Activities

In order to provide the time needed by both teachers and pupils for doing essential war training, it may be necessary to eliminate many of the extracurricular activities present in high schools in more normal times. In addition, schools will do well to postpone till after conclusion of the war

some of their social programs which, however meritorious, are not directly pertinent to the war effort.

Teacher Load

Teachers are eager to contribute to the war effort as individuals and as a group. Yet, their efficient work in training pupils for the war effort through classroom work and related activities may well be impaired by continual community demands not especially related to the work of teaching pupils. The desire of administrators and teachers to serve the community often prompts them to undertake tasks which might be better performed by other citizens at no cost of interruption to pupil training. Citizens will usually be found willing to undertake these tasks in order to afford teachers full time to devote to activities related to pupil training.

As the most important additional function of the school in wartime is the aiding of the war effort, the time which teachers have heretofore given in teachers' meetings to the study of educational theory could now profitably be devoted to planning for the new responsibility, and teachers in their meetings could evolve and be given assignments which are definite, practical, and immediate.

Initiation of the Victory Corps Organization

Method of Procedure for Initiating Victory Corps Program

The problem of public relations in the establishment of a Victory Corps which seeks to mobilize students in high school for wartime service must be considered. The high school does not operate in an academic vacuum but in a community setting. Arrangements should be made before initiating the program outlined in this publication to secure the support of the board of education, community leaders, newspapers, faculty members, and parents before announcing the program to the students themselves. The following suggestions for a method of procedure in initiating the Victory Corps have been prepared by a principal of long experience. Adaptions will need to be made in the light of the particular community.

Assuming the approval of the board of education and superintendent of schools the principal will:

1. Inform the teaching force and community leaders of the program and secure an enthusiastic endorsement and willingness to participate. Establish an advisory group of faculty members and citizens who will cosponsor the various activities of the Victory Corps. Decide with this advisory group the policies governing acceptance of applications and the awarding of insignia, record keeping and the mechanics of transferring a student from one group to another.

2. Canvass the special abilities of teachers and volunteer community participants for

helping with activities in the various curricular and extracurricular fields represented in the Victory Corps program.

3. Discuss with teachers and initiate needed curricular adaptations.

4. Discuss with teachers the means of:

- Obtaining school credit for work experience done outside school hours.
- Modifying graduation requirements.
- Establishing closer working relations with the U. S. Employment Office.
- Establishing working relations with representatives of the armed forces.
- Extending the guidance program.

5. Present America's need of trained manpower to the student body.

6. Inform parents through the local press, forums, bulletins, parent organizations, radio programs, etc., of the purposes and the program of the Victory Corps.

7. Increase the guidance function of the school by:

- Stressing the part of first- and second-year students.

- The desirability of voluntary services in war effort.

- Inventorying the abilities, interests and previous training of upper-class students and counseling them in their choice of courses qualifying for membership in special service divisions.

8. Explain available curricular offerings to the individual student and where desirable make an immediate change of program.

9. Secure the approval of the changed program from the parents of the student.

10. Head up the supervision of the Victory Corps by an over-all director who might be either the principal or some teacher designated by him.

11. Share the control and the direction of the Victory Corps activities with the student council or Victory Corps council of the school.

12. Appoint for each special service division a division counselor to be responsible for the curricular and extracurricular program and activities of the division.

Obstacles To Be Faced

These proposals for a High-School Victory Corps organization are presented with a full appreciation of the obstacles which may be met in initiating the program in the schools of the Nation. Exact blueprints for curriculum conversion cannot be given by the U. S. Office of Education or any other single agency.

Authentic Information

The high schools will receive a growing body of authentic information concerning the content of courses needed in certain areas related to the war effort. For example, the U. S. Office of Education, in collaboration with the Preinduction Training Section of the Army Services of Supply, now has in process of preparation for publication a series of leaflets outlining the preinduction courses which are needed by the ground forces of the Army in its various branches and which are practicable for high schools, especially those in the larger communities.

Securing Teachers

Another obstacle facing the high schools in connection with curricular adaptations for Victory Corps members is that of securing and holding well-trained teaching personnel for special war-related courses. The induction of younger male teachers into the Armed Forces presents and will doubtless continue to present a problem for school administrators; as will also the attrition of faculties caused by the attraction of higher wages offered in war industries. School officials, in cooperation with teacher-training institutions, teacher-certification officials, and local employers, will seek ways to alleviate the developing shortage of teachers of mathematics, physics, agriculture, home economics, shop courses, and physical education.

Improvising Equipment

The problem of securing adequate equipment for new courses, especially those of a specialized vocational character, is a real one. Nevertheless much can be done through local initiative in borrowing, renting, or leasing some items of equipment or in building or improvising others which may be needed.

Accreditation

College entrance requirements, as well as requirements for graduation from high school, need adjustment in wartime. The substitution of war service, war production, and other forms of participating work experience in critically needed occupations for class attendance may be encouraged, at least during the period of the war emergency, without lasting damage to students' education. State and regional accrediting associations must adjust their requirements. A campaign of community education to break down the existing prejudices in favor of the strictly academic college preparatory

types of high-school course is also required. Naturally such a campaign will require the vigorous leadership of the professional educators.

Individual Progress

In this emergency the crucial test is whether a young person can do the job that needs doing. If the fundamentals of the job can be learned in less time than 5 hours a week throughout 16 or 18 weeks, then recognition should be given to that fact and arrangements made for crediting accomplishment regardless of the amount of time served. For example, a senior boy needs four units to graduate. He is tempted to leave school to take a position in a nearby war production industry. His services are needed. He is at least partially trained for the job. Yet he is urged to remain in school to serve the clock hours required to win a diploma. Provision should be made during this war emergency for recognition of individual rates of progress and learning. As the shortage of manpower is felt in severer form in the next few months, the need for testing ability and achievement, both for high-school graduation and for college entrance, will become more pressing.

Guidance Personnel

In framing the proposals in this publication there has been full recognition of the problems of guidance which the Victory Corps program implies. Some helpful charts are now in preparation concerning the various specialties of the armed services, including both air forces and ground forces. These will assist teachers and guidance counselors in orienting young people to the needs of the Armed Forces for trained personnel.²⁷ A similar chart is already available from the Office of Education covering war production occupations and training possibilities.²⁸ Additional materials of this nature will be published from time to time.

Because of the multitudinous details of information needed to counsel youth wisely in these days, there is no escape from specialization of guidance personnel if the job is to be well done. The establishment of a Victory Corps as proposed in these pages may well serve to make pupils and teachers and school board members more sensitive to the guidance problems involved in manpower recruitment in wartime.

Victory Corps Community Advisory Committee

The Victory Corps program in the schools must be an integral part of the wider community war effort. In order to insure the coordination of the program of the Victory Corps with the programs of other community agencies, it is suggested that there be organized a Victory Corps advisory committee in each community. Some of the more specific purposes of the advisory committee might be:

1. To counsel and assist the superintendent in planning the program of activities of the High-School Victory Corps.
2. Upon request of the superintendent to assist in providing the volunteer technical leadership to the special service divisions of the Victory Corps.
3. To suggest the use of the Victory Corps members for community war-related service projects of various kinds, and thus to assist in making members of the Victory Corps feel that they are part of a total community war effort.

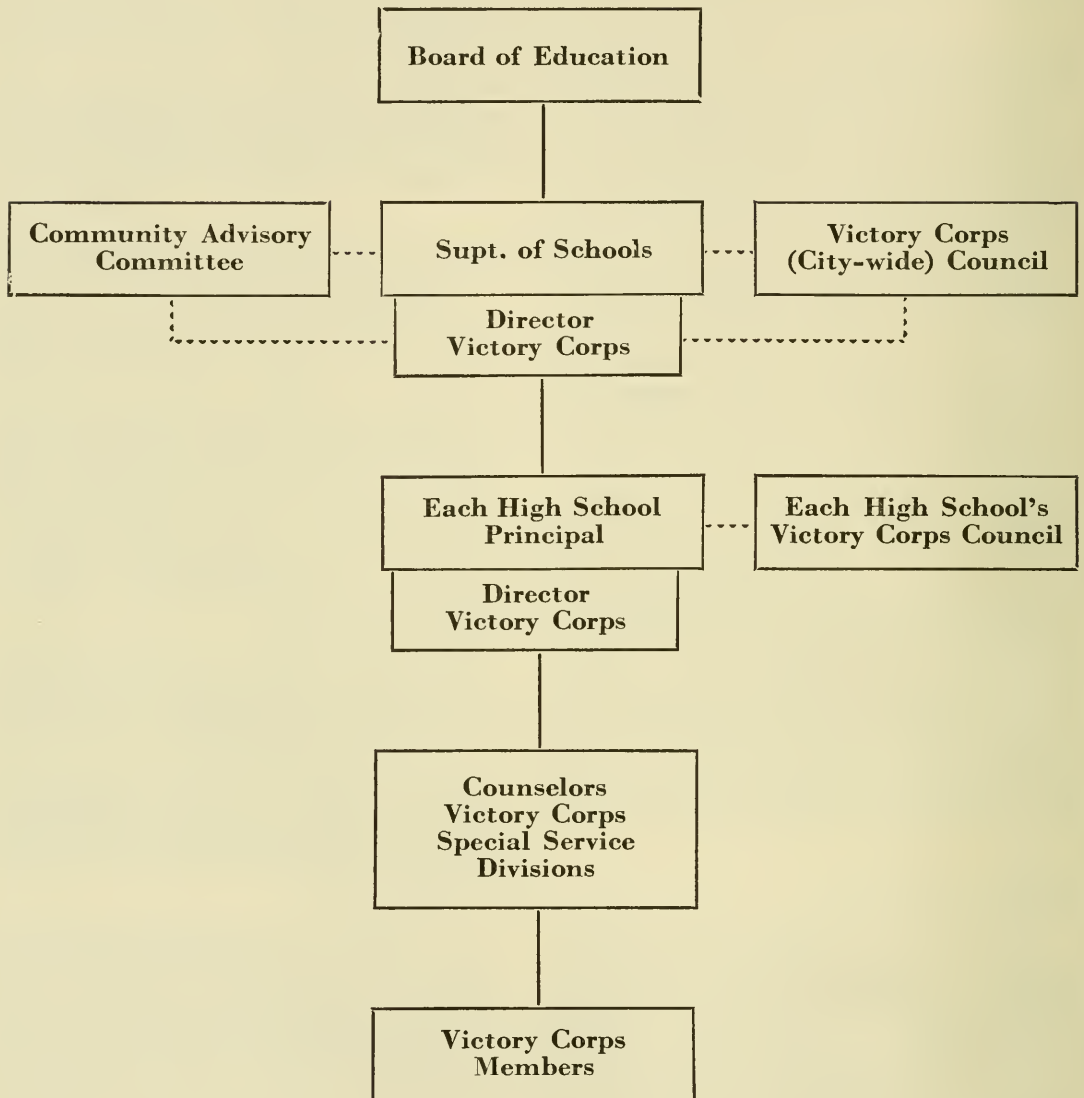
The membership of the Victory Corps advisory committee might well include

²⁷ Look for announcement of helpful guidance materials in *EDUCATION FOR VICTORY*, biweekly publication of the U. S. Office of Education.

²⁸ The new revised edition *Job Training for Victory*, U. S. Office of Education, February 1942. (Available from the Superintendent of Documents, Government Printing Office, Washington, D. C.)

Suggested Organization for a City

(For Larger Communities With More Than One High School)

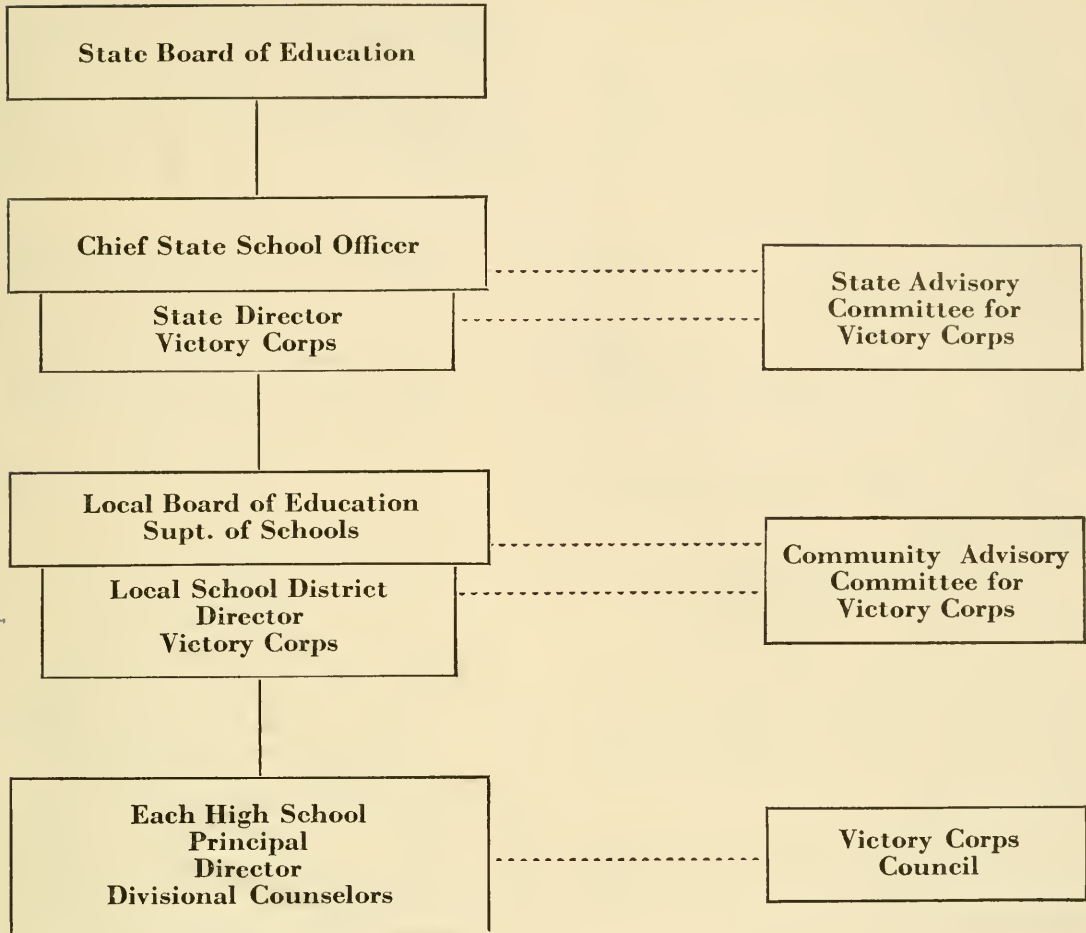


representatives of local defense organizations or committees, such as the Defense Council, Red Cross, Rationing Boards, Salvage Committee, Army, Navy, and the like. Additional representatives might be added of important community, social, business, labor, fraternal, and other interests.

Victory Corps School Council

It is recommended that in the development of the war service activities of the Victory Corps there be established school councils representing the school faculty, pupils, and their parents. The present student council organizations, where they

Suggested Organization for a State



exist, might be expanded and reorganized as Victory Corps school councils.

Some of the functions of a school council might be:

1. To help establish general policies and procedures in the organization and administration of the school Victory Corps and its various activities.

2. To help provide for general supervision of the program of the school's Victory Corps, especially as regards the special service

division activities, both curricular and extra-curricular.

3. To help secure such needed technical assistance as may be provided by citizens in the community in carrying out the Victory Corps projects.

In the larger school systems there may be a need for a Victory Corps city-wide council, with representation from the individual school councils. This city-wide council would serve chiefly as a general forum and clearing house concerning Victory Corps matters of policy.

APPENDIX A

How To Make the High-School Victory Corps Cap

Material: Use medium gray cotton material, such as muslin, poplin, or gabardine. The firmer the material the more satisfactory the cap. 3 caps, medium size, may be made from 13 inches of 36-inch material.

To cut: For medium size (22-inch head size) cut a piece of material 11½ inches by 13 inches. See Diagram I.

To make: 1. Fold in the center, placing right side of material together, as indicated on dotted line "c" in Diagram I; bringing points a to a and b to b.

2. Stitch a ¼-inch plain seam at each end as indicated in Diagram II. Stitch twice to reinforce seam.

3. Make a ½-inch plain hem at the open side a-b. Stitch. See Diagram III.

4. Turn the cap right side out and measure 2½ inches from each corner "c" toward the center and toward the open edge of the cap. Fold this point in as shown in Diagram IV. Fold both corners in.

5. Press well.

6. Apply insignia as shown in Diagram V.

APPENDIX B

Extracurricular and Service Activities of Victory Corps Members

As a wartime student organization for secondary schools the Victory Corps is designed to encourage and give recognition to the wartime service activities of students. Some of these activities will be given recognition as elements in the requirements for admission to general membership in the Victory Corps. Others will be tied up directly with the program of the special service divisions of the Victory Corps. Which activities shall be identified with the general membership

and which with membership in the special service divisions will naturally vary in different communities, as determined by the Victory Corps school councils. The following list is meant to be suggestive merely of some of the many service activities which the High-School Victory Corps will foster and promote:

Air raid warden service.

Collecting books or preparing dramatic and musical productions for U. S. O.

Assisting in the care of children of mothers employed outside the home.

Acting as housekeeping aides for mothers employed outside the home.

Assisting in the cultivation or harvesting of farm crops.

Fire warden service.

Plane spotting service.

Assisting in school safety patrols.

Preparing overseas kits for soldiers.

Assisting in Red Cross service activities.

Providing messenger service for local civilian defense organizations.

Providing clerical service for local civilian defense organizations.

Acting as nutritional aide in the school lunchrooms.

Giving volunteer, library service.

Giving assistance in community recreation programs.

Selling War Savings stamps and bonds.

Conducting school correspondence with alumni in the armed services.

Serving as volunteer emergency ambulance drivers.

Assisting in community salvage campaigns.

Assisting in school and home gardening and canning activities.

Assisting with community health services.

How To Make the High-School Victory Corps Cap

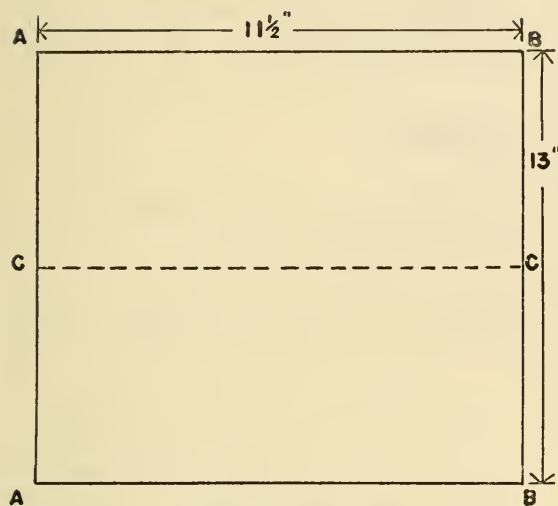


Diagram I

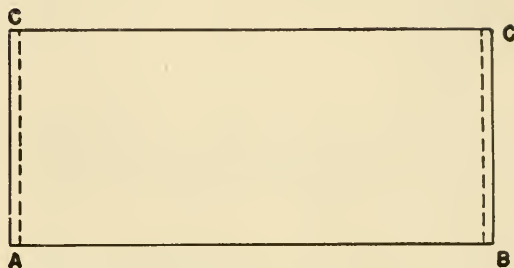


Diagram II

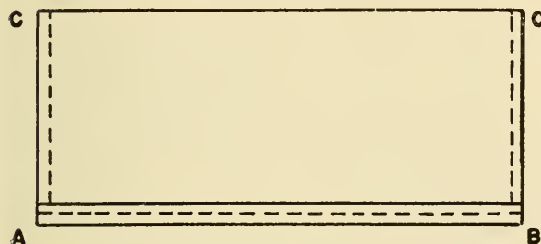


Diagram III

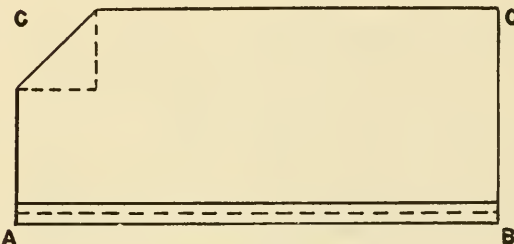


Diagram IV

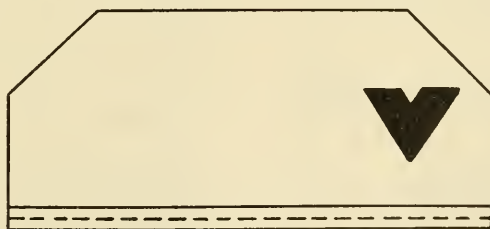


Diagram V

These and other service activities are in many instances already being engaged in by high-school pupils who are members of existing youth organizations. It is not intended that the High-School Victory Corps will supersede these organizations. Whether members of such existing organizations or not high-school pupils will in their service activities as members of the Victory Corps receive encouragement in participating regularly in important and continuing or recurrent service activities related to the war effort.

In addition to the service activities suggested above there is a place in the Victory Corps organization for many extracurricular club activities which grow out of the schools' wartime curriculum or which represent specialized interests and studies which may be difficult to provide in the organized curriculum itself. Suggestive of some of these are the following:

- First aid club.
- Camouflage club.
- Map-making and map-reading club.
- Model plane building club.
- Model ship building club.
- Model glider building and flying club.
- Marksmanship practice or rifle club.
- Home nursing club.
- Inter-American Friendship club.
- United Nations club.
- Meteorology club.
- Military hygiene and sanitation club.
- Photography club.
- Aircraft identification club.
- Radio communications club.
- Blinker and semaphore drill club.
- Combustion engine club.

Whether or not the names of existing high-school clubs are changed to mirror changes of club activities to fit the wartime

situation, the redirection of high-school club activities is indicated. It will be one of the important responsibilities of the School Victory Corps councils and of the service division counselors to develop plans by which to tie in a variety of club and extracurricular activities with the High-School Victory Corps program.

APPENDIX C

Wartime Service Organizations in Secondary Schools

The following action was taken by a unanimous vote of the U. S. Office of Education Wartime Commission on July 22, 1942:

This total war in which we are engaged is a war of military combat, a war of production, and a war of ideas. Education has an indispensable part to play in each of these phases of total war. Its function is to prepare each individual for the thing he can do best to help in the total war effort. Individual, as well as national, safety depends upon the skill and the effectiveness which each participant brings to his task. Education must help individuals to prepare for participation in all phases of the war effort and must not emphasize one aspect of participation to the exclusion of or out of proportion to other phases. Victory will come as a result of giving each element in the prosecution of total warfare, whether in the sphere of military combat, of production, or of ideas, its proper place and emphasis.

This brief statement concerns wartime organizations in secondary schools. Its focus is on student organizations, which to serve effectively in preparing youth for war service must be fundamentally related to the curriculum and courses of study. The Commission feels that the following general principles should govern the major school organizations for war services:

1. Opportunity should be provided through the schools for all in-school young people to participate in organized war effort.

2. War needs demand that many of the usual extracurricular organizations of secondary schools give place to carefully planned war service organizations and that other existing organizations substitute war service programs for their usual peacetime programs.

3. Student organizations concerned with the war effort should be under the control of school authorities who should also have a part in the initiation and formulation of plans for activities to be carried on through the schools.

4. All phases of war service should receive appropriate emphasis and recognition. The success of the total war effort should not be imperiled by overemphasis upon some activities and the neglect of other essential activities.

5. Each pupil should have an opportunity to render the service for which he is best fitted, and which will make the largest contribution to the total war effort, in terms of his health, maturity, and total responsibilities.

6. The war service programs and activities of school-sponsored organizations should be in accordance with policies established by the Federal Government.

The Commission recommends the establishment in each secondary school of a school-wide organization consisting of all pupils who are engaged in war services or are preparing for participation in the war effort. Membership in this organization would be open to all members of the school engaged in war services, such as civilian defense activities, war savings programs, salvage campaigns, food production and conservation movements, and to all en-

rolled in courses preparatory to service in war production and in the Armed Forces. Special emphasis should be given at this time to those organizations designed to provide preparation for the air forces and the related supporting services.

The Commission further recommends that, to promote and meet the immediate needs of the Armed Forces, a policy committee to advise with the Commissioner of Education be established, with membership to include representatives of the Army, the Navy, the Civil Aeronautics Administration, and of the Wartime Commission.

Members of the Commission are:

John W. Studebaker, U. S. Commissioner of Education, *Chairman*.

Bess Goodykoontz, Assistant Commissioner of Education, *Vice Chairman*.

Fred J. Kelly, Chief, Division of Higher Education, *Executive Director*.

John Lund, Senior Specialist in the Education of School Administrators, *Acting Executive Director* (Executive Director, Divisional Committee on Higher Education).

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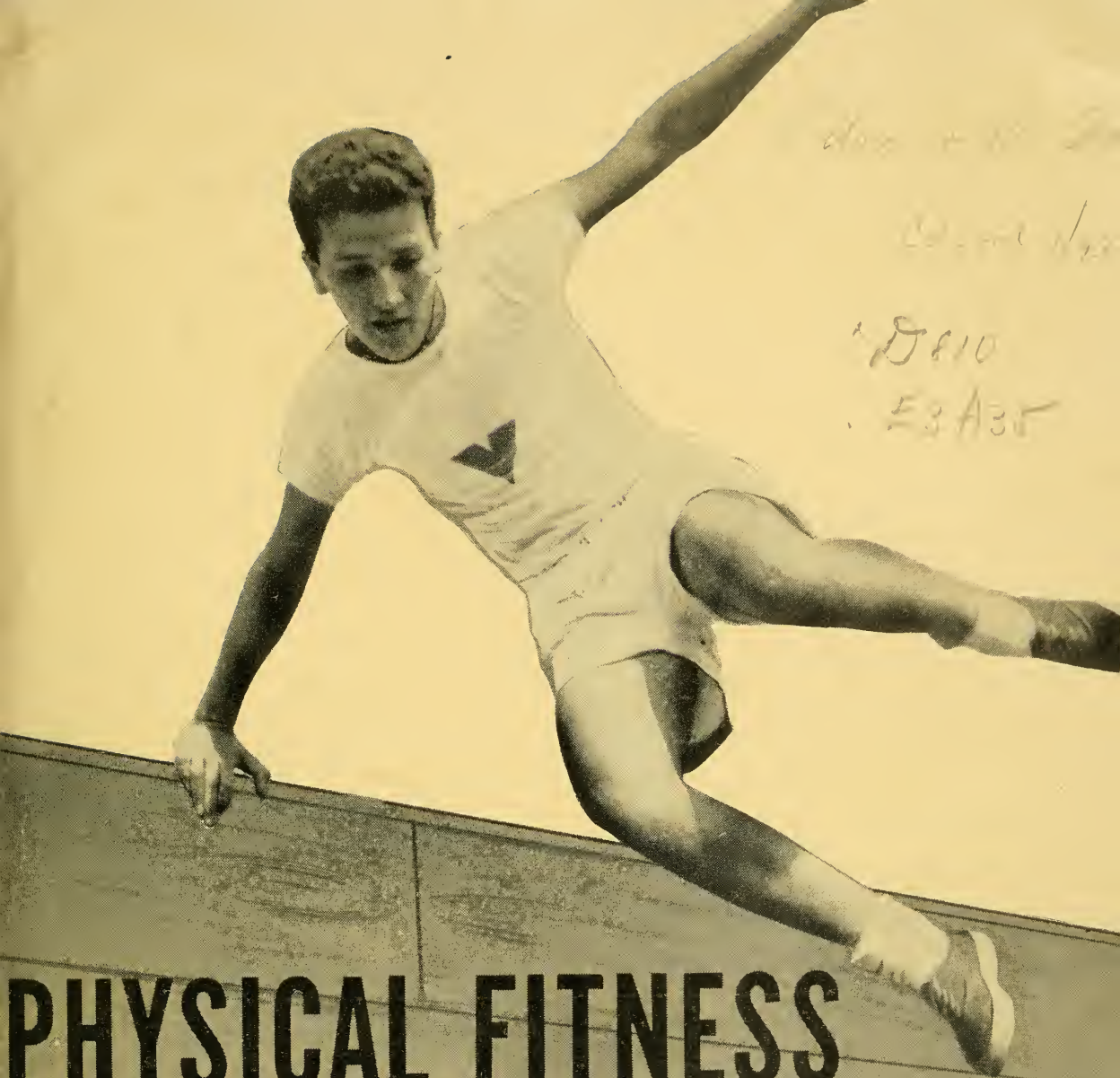
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★ It is expected that additional copies of this pamphlet may be needed by many high schools. They may be secured from the Superintendent of Documents, Washington, D. C.

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PHYSICAL FITNESS

Through **PHYSICAL EDUCATION**



FOR THE VICTORY CORPS

DEPARTMENT OF

FEDERAL SECURITY AGENCY • U. S. OFFICE OF EDUCATION

VICTORY CORPS SERIES
PAMPHLET NUMBER 2

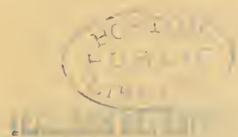
U.S. History Course material on Physical Education for the Victory Corps

PHYSICAL FITNESS

Through PHYSICAL EDUCATION

For the Victory Corps

Prepared by a committee appointed by the Commissioner of Education with the collaboration of the U. S. Army, the U. S. Navy, the U. S. Public Health Service, and the Physical Fitness Division of the Office of Defense Health and Welfare Services



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FOREWORD

ALL THOUGHTFUL citizens recognize the fact that America is engaged in the most serious and difficult war the Nation has ever faced. A successful culmination of the struggle can be assured only through the earnest, sustained, and sacrificial efforts of everyone. This will involve service in the armed forces for most young men and work in agriculture or industry for many young women.

Wartime service demands a condition of strength, endurance, stamina, coordination, and agility beyond that ordinarily required for peacetime pursuits. There are many data and reports of observations by competent persons which indicate that American youth are deficient in the physical characteristics needed by soldiers, sailors, and airmen. Military and naval authorities have stated often that the preparation of recruits for active service could proceed more rapidly if the young men who are inducted into the armed forces were in better physical condition.

The high schools of the country have recognized the seriousness of the situation confronting the Nation and have indicated repeatedly their eagerness to make the maximum contribution of which they are capable to the war effort. One of the definite and objective things that the high schools can do, which will show almost immediate results, is a program of physical education for all normal high-school boys and girls. The selection of pupils for participation in a program of vigorous and rugged activities should be based on acceptable examinations and tests in order that the curriculum may be adapted to the needs and abilities of each individual.

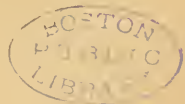
This bulletin has been prepared as a guide to high-school principals and teachers in planning and executing wartime programs of physical education. It is one of the publications in the Victory Corps series and is intended for use in connection with all five divisions of the High-School Victory Corps.

The Army, Navy, United States Public Health Service, physical educators, and staff members of the U. S. Office of Education have collaborated in the preparation of this manual and it has been approved by the National Policy Committee for the Victory Corps. The committee consists of the following persons:

Chairman—EDDIE RICKENBACKER, World War I Flying Ace.

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U. S. Office of Education Wartime Commission

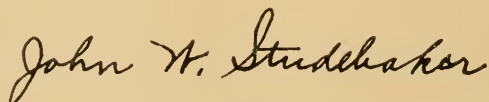
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FRANK A. TICHENOR, Chairman of the Aeronautical Advisory Council.
Department of Commerce, Publisher "Aero Digest."

In addition, three agencies with special interest in physical fitness have
given constant advice and assistance both in the development of plans for
the manual and in the preparation of the manuscript. They are the
Division of Physical Fitness of the Office of Defense Health and Welfare
Services, the U. S. Public Health Service, and the American Association
for Health, Physical Education, and Recreation.

The program outlined in this volume is recommended for use in high
schools in order that American boys and girls may become more physi-
cally fit to carry their unusually heavy responsibilities during the next few
years.

A handwritten signature in cursive script, reading "John H. Studdaker". The signature is written in dark ink and is positioned above the printed name and title.

U. S. Commissioner of Education.

CHAPTER I

A Physical Education Program for Every School

The Program

THIS BULLETIN presents a wartime program of physical education that is planned to contribute to the physical fitness of high-school pupils as a part of the total war effort. The content of the program, the selection of pupils for participation, and the methods of fitting the program into the total curriculum of a school are explained. Instruction and practice in aquatics, gymnastics, combatives, sports and games, and other vigorous activities adapted in intensity and duration to the individual needs of pupils are emphasized. The choice of activities and methods of presentation are made in light of the needs of youth at the present time and the recommendations of representatives of the Army and Navy.

It is recognized that programs of health service, health instruction, healthful school living, physical education, and recreation all have an important influence on physical fitness. The content of this bulletin, however, is directed definitely toward the conditioning of high-school pupils for service in the armed forces and industry and agriculture.

In general, the activity program should provide at least one regular school period daily of instruction in physical education for all pupils. The instructional period should be supplemented by an elaborate participation program including intramural and interscholastic athletics, and other vigorous activities. It is recommended that all normal pupils, after an adequate period of training, should participate in competitive athletics, mass athletics, road work, hikes, week-end journeys, camping, hard physical work such as plowing, cutting wood, or digging dirt, and similar

activities for at least 10 hours each week in addition to the physical education period that is included in the school schedule.

Camping provides one of the most desirable forms of activity outside the regular daily school schedule. Camping experience contributes to physical fitness and provides training in many skills and activities that are of direct military value. The recent statements of Army officers corroborate the observations of the Civilian Conservation Corps and other leaders of youth during the past decade that most American youth do not have the ability to live comfortably and safely in the open country. It is true, for example, that large numbers of boys do not know how to hold and use an axe, build and use a fire out-of-doors, arrange a comfortable sleeping place in the woods, and avoid the hazards and discomforts of insect, reptile, and plant poisoning. It is recommended, therefore, that much attention and emphasis be given to providing extensive camp experience on week-ends, during holidays, and vacations for all boys and, if possible, for all girls. Many educators have stated that school systems should provide camps for all high-school boys during 2 months each summer in which training would be provided in woodcraft, campcraft, swimming, sports, gliding, and ground training in aviation. This larger program may not be practicable now, but every school can provide shorter periods of camping experience.

Purpose

The purpose of the program outlined in this manual is to make secondary school pupils physically fit to undertake the unusually heavy tasks they will probably be called upon to

assume in the near future. For some it will be for induction into the armed forces. For this group the program will have for its objective the development of:

- (a) Strength, endurance, stamina, and bodily coordination.
- (b) Physical skills that will be of direct value and use in the armed forces and war work.

For others it will be for employment in agriculture, industry, commerce, domestic services, and other essential occupations. The program is, therefore, for all pupils. The activities should be adapted (1) to their respective abilities to perform them, and (2) to the prospective services in which they engage on leaving school.

Selection of Pupils for Participation

The selection and classification of pupils for participation in the physical activities are based on (1) their physical condition and (2) their size and maturity. It is recommended that the physical condition of the pupils be evaluated by the observation of all pupils by their teachers and a more complete inspection of the pupils who seem to deviate seriously from the normal. The techniques of carrying on the observation and inspection are described in Chapter III on Selection of Pupils for Training. The boys may be classified according to size and maturity through the use of the classification procedure described in Chapter VI on Standards and Tests. Data are not available for a similar classification of girls. It is important that teachers be guided by the results of the selection and classification procedures in planning and adapting the program of activities to meet the needs and abilities of each pupil. Emphasis should be placed on the fact that young children enrolled in high school, many of whom are 15 years of age or younger, should not be stimulated or urged to achieve the levels of performance in strength and endur-

ance attained by trained soldiers. Only the pupils who are in excellent physical condition should be encouraged to participate in vigorous physical activity such as plowing, cutting wood, cutting grass, or athletic games for 15 hours each week. It usually requires about 1 month of training before a normal youth can practice physical exercises strenuously for protracted periods of time without undesirable muscle soreness and fatigue.

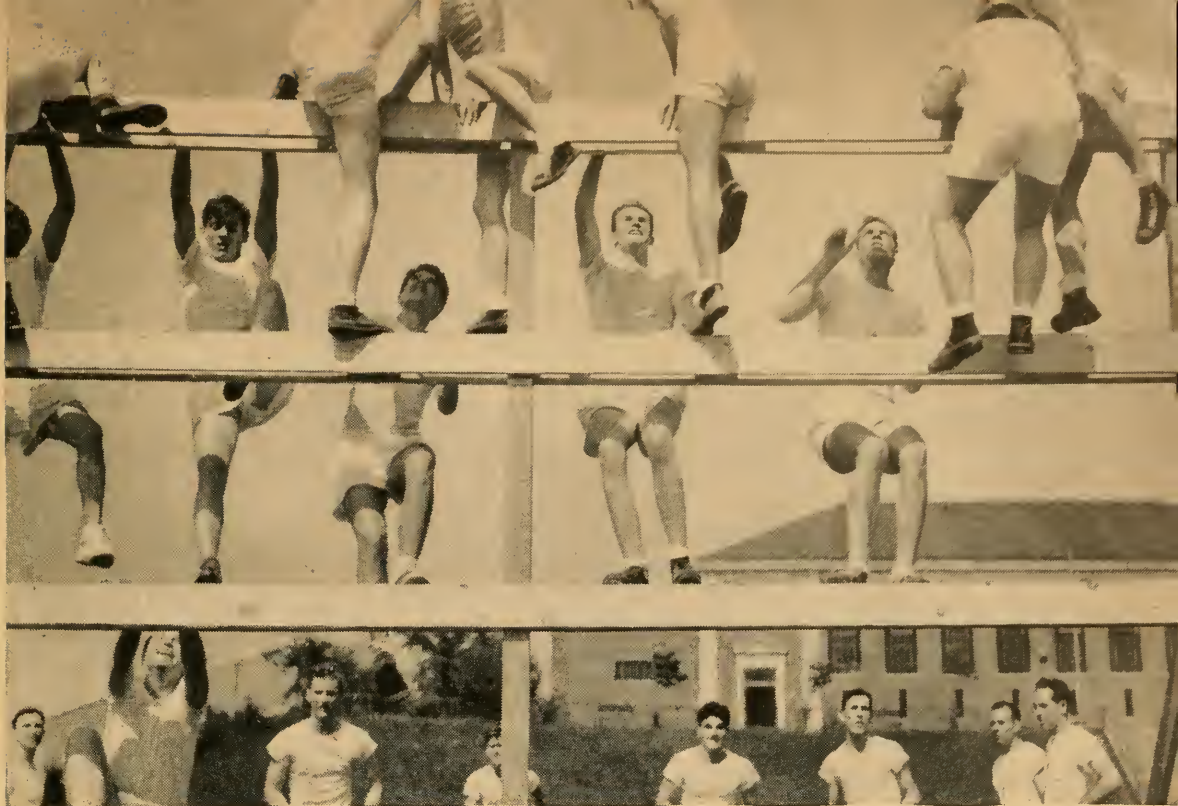
Initiating the Program

In fitting the physical education program into the total program of a school it is necessary that there be provided the minimum essentials of (1) adequate time in the daily schedule, (2) a competent teacher, (3) a place for conducting the classes, and (4) at least a minimum amount of supplies and equipment.

The initiation of the program on a Nationwide basis will demand an expenditure of time, effort and money. It promises, however, reasonable certainty of attaining the objective of maximum physical fitness for the participants. Basically it calls for but two changes in the usual high-school program. The first is an increase in teaching time allotted to instruction in physical education, and the second change is an increase in the intensity of the exercises.

Adaptation of Program for Small Communities

The proposed program is flexible enough to permit schools of all types, including large and small urban and rural schools, to make such adaptations as will enable them to undertake it. Many of the activities can be conducted without apparatus or equipment, but the greater values should be expected where at least a minimum amount of supplies and equipment are provided and adequate buildings and playing fields are available. In cases of necessity, there are many activities that can be practiced during inclement weather in school buildings that do not have gymnasiums. The maximum use and adaptation



should be made of corridors, classrooms, auditoriums, stages in auditoriums, and paved outdoor courts in poorly equipped schools. Some of the activities that can be used under unfavorable conditions are calisthenics; gymnastic stunts; chinning and the hanging half lever on removable bars in doorways or on bars attached to brackets on the walls of corridors; the push-up; the sit-up; climbing ropes suspended in corridors, auditoriums, or stages; the leg lift; the forward bend; jump and reach; standing broad jump on mats or other soft surfaces; potato races in corridors, auditoriums, or basements; grip and chest exercises that can be practiced with low-cost spring or elastic equipment; and bar vault in corridors, auditoriums, stages, or basements where a safe bar and mats may be provided.

There are many days during the cold winter months on which warmly clothed children can participate in vigorous activities out-of-doors. This is particularly true in situations where there are paved surfaces that can be

kept free of snow, ice, mud, and water. It is recommended, therefore, that paved courts be provided where they seem to be needed and that a maximum use be made of the outdoors for physical education activities.

There are probably many communities in which existing facilities and personnel can be used to supplement the school facilities and personnel in carrying out the instructional and participation phases of the physical education program. Consideration should be given to the possibility of cooperation between schools, and any organizations such as YMCA's, athletic clubs, recreation departments. Granges and other community agencies, in planning and executing the school program of physical fitness.

Need for Physical Fitness

Large numbers of pupils now enrolled in high schools will enter into active service in the armed forces and wartime industry in the immediate future. In addition to the boys



who will be called to some form of service, it has been estimated that by the end of 1943, 6,000,000 women will be employed in war production, many of whom will be drawn from the age group now in high school. These youth must be fit in order to render effective service. They must be fit not only from the standpoint of technical skill and morale, but also physically fit, which means that they must have the strength, skill, stamina, and endurance required for active service and hard work.

Army and Navy officers have stated that large numbers of the young men inducted into military service whose physical examinations reveal no serious physical defects, lack development, skills, strength, and endurance to such a degree that the program of military training is retarded for several months while the recruits are being built up physically.

It is common knowledge among physical education instructors in high schools and colleges that large numbers of their male students are weak, have poor coordination, cannot climb a rope, carry a burden equal to their own weight, or vault out of a trench the height of their chests. The poor physical condition of the majority of American young people is a serious handicap in training soldiers, sailors, and airmen and interferes with the maximum industrial and agricultural production.

Nature of Physical Fitness

A person who is physically fit for military or naval service must be capable of maintaining sustained effort with a maximum of speed and skill. This means that one must have strength, stamina, endurance, and good co-

ordination. Speed, agility, and flexibility in movement are important factors in skill.

There are several conditions that affect the development and maintenance of a desirable level of physical fitness. Participating regularly in a rational program of physical education has been demonstrated to be one of the most important elements that contribute to physical fitness. Other significant factors that influence physical fitness, favorably or adversely, are physical defects, communicable diseases, accidents, nutrition, personal health habits, and environmental conditions.

The development of physical fitness through the use of physical education activities demands vigorous participation over protracted periods of time. An individual must press his effort until it hurts. This means that he must not stop at the first sign of fatigue, but continue his exertions until he is tired.

Preparation for service during wartime demands that boys must learn to swim long distances while fully clothed and carrying equipment; they must be able to keep themselves afloat for many hours. Arm and shoulder strength must be developed so that they can climb down ropes or scale walls while carrying heavy loads. The ability to take hard falls without serious injury must be developed. In combative activities it is necessary to stress delivering their energy in a quick explosive effort. Games and sports must develop a spirit of aggressive attack and ability to take physical punishment without flinching. For industrial groups, which are far greater numerically than the armed forces, physical strength and stamina are needed to speed up work for long hours without absences which would slow production.

CHAPTER II

Responsibility of School Administrators and Teachers

Administrative Adjustments

THE SUCCESSFUL operation of the war-time program of physical education in high schools that is recommended in this bulletin will probably necessitate adjustments in several administrative and managerial procedures on the part of many school administrators and teachers. Some of these functions must be performed on the State level, others on the city and county level, and several in each local high school.

Some of the items that should receive attention on the State level are: (1) supervisory and consultant service; (2) a program of pre-service and in-service training of teachers; (3) credit for physical education toward high-school graduation; (4) planning for the cooperative efforts of school authorities and representatives of public health, nutrition, civilian defense, recreation, and voluntary health and recreation groups; and (5) providing for inclusion of physical education in the State course of study through action of the State Curriculum Commission or by other means.

The functions that should be performed on a city and county level in promoting and administering an adequate program of war-time physical education include:

1. The official approval of the program by the board of education.
2. A program of interpretation and publicity to help the citizens of each community and the members of the board of education to understand the objectives and content of the program.
3. The allocation of—
 - (a) At least one regular school period daily for the instruction of every pupil

in physical education. Daily periods of at least 60 minutes and a maximum class size of 50 pupils are recommended.

- (b) Teaching and supervisory personnel to conduct the program.
 - (c) Funds for facilities, equipment, and supplies.
4. The approval of standards concerning—
 - (a) Attendance.
 - (b) Excuses.
 - (c) Return of pupils to classes after absence.
 - (d) Marking.
 - (e) Credit.
 - (f) Record keeping.
 - (g) Dress for activity classes.
 - (h) Physical examinations.
 5. The arrangement of schedules for athletic games. Since participation in competitive extracurricular activities of a vigorous, bodily-contact nature is highly desirable, it may be necessary to change the existing school transportation schedules in some instances in order that the interscholastic and intramural athletic program may function.
 6. The adoption of a policy which would make school facilities available for use by the citizens of the community.

Adaptations in Local Schools

The details of planning and operating the high-school program of physical fitness will be different in each school. The interest, diligence, and enthusiasm with which the principal and teachers of a school attack the problems involved will determine largely the quality of results that are achieved.



In many schools, if the program of physical education recommended in this manual were adopted, changes in the school program would be necessary. These changes would include (1) increase in time for instruction and participation in physical education activities; (2) a requirement that all normal pupils participate regularly; (3) an increase in the intensity and ruggedness of the activities included in the program; and (4) changes in the methods of program planning, class organization, and teaching.

In schools with inadequate facilities and faculty, adjustments can frequently be made that will permit the conduct of the minimum essentials of the program. Gymnasiums and athletic fields, for example, are highly desirable, but their absence does not prohibit all parts of the program. Playground space, vacant lots, blocked-off streets, building roofs, and other makeshifts can be used if necessary.

Enthusiastic leaders can do much to adapt a program to conditions where there are minimum facilities. Supplies and equipment usually are necessary for a program of physical fitness, but apparently they will be severely rationed during the war. It will still be possible, however, to carry on a minimum program without them, but in situations where supplies and equipment are available, their conservation, which has always been desirable, now becomes a necessity.

The ways in which additional time in the school day may be found for physical education include reorganization of the school program or lengthening the school day. The problem of securing additional teacher time is an important one that must be solved in a different way in each school. It may be that the principal could (1) utilize the help of volunteers such as recreation workers or other highly motivated teachers; (2) increase

the number of teaching periods required of all teachers; (3) eliminate classes whose contributions to the war effort are of less immediate value; (4) bring back to teaching former teachers who are not employed at the present time; and (5) organize larger classes with pupil squad leaders acting under the direction and supervision of a teacher.

The increase in the strenuousness of the activities and duration of participation make it essential that pupils be classified in ability groups. At least three groups seem desirable and these are:

1. The normal group which will be able to take the full program.
2. The pupils who return to school after absence due to illness who will need a modified program for a limited time.
3. The physically handicapped and less healthy pupils. Such pupils, properly conditioned, are frequently able to take their places in war industry.

The daily instructional periods should be filled with activities of sufficient ruggedness to make the pupils physically fit. This involves among other things, an extension of the intramural and interscholastic programs. These additional vigorous physical activities will augment the benefits derived from required classes. Pupils who participate in the interscholastic and intramural programs should participate in the regular instructional periods in physical education.

When intramural schedules are prepared, emphasis should be placed on competition for the largest number of pupils the greatest number of times possible. This means that round-robin schedules and other procedures that involve large numbers should be used instead of elimination tournaments.

It is important that every school keep proper records, maintain standards of accomplishment, provide for safety, and care for pupils in case of accident.

The administrative procedures of local schools should require teachers of physical fitness to reduce to a minimum the time so

frequently lost in routine class procedures such as: (1) Assembling classes after the bell; (2) taking roll; and (3) taking a shower bath and dressing after class.

Planning by the Teacher

Each teacher should develop and use plans and programs that are suitable to the particular situation in which he is teaching. The statements on the following pages make suggestions which should be helpful to a teacher in developing his own plans. Provision should be made for each of the following items:

A. Plan ahead.

Before the beginning of each school year (the preceding spring, if possible) the chairman of the physical fitness program for schools not having a full-time teacher, or director of the physical education department in schools having several teachers, or the city director of physical education in centers having such directors, in cooperation with other men and women instructors, should work out suggested standards and policies to be followed. When an agreement has been reached by the persons having specific responsibilities for physical education, a conference should be held with the proper administrative authorities to review, adjust, and approve the plans which have been made.

B. Consider all activities which may be included in the secondary school program of physical education.

After the plans and policies have been approved, the instructor should make a list of all of the activities which may be used in the program during the year. Emphasis should be placed on the fact that the entire program, including instructional and participation periods, must be planned. In selecting activities a teacher should keep clearly in mind the following items:

1. The contribution that the selected activities might make to the development of physical fitness.

This bulletin names activities which are suitable. The instructor can add to the ones suggested any activities which he desires. The activities that are added should be rugged and vigorous.

2. The facilities, equipment, and supplies that are available.
 - (a) Size and number of courts.
 - (b) Size and location of gymnasium.
 - (c) Play areas and supplies such as balls, bats, and nets.
 - (d) Budget for the year.
3. The characteristics of the community.
 - (a) The interests and attitudes toward certain activities of rural and urban communities. Where community interests are narrow, intelligent effort should be made to enlarge and broaden them.
 - (b) Suitability of activity for the location and available facilities.
4. The pupils.
 - (a) Age and number of pupils.
 - (b) Previous training of pupils.
 - (c) Pupils having physical defects.
5. The schedule.
 - (a) Length of periods and number per week.
 - (b) Season of year.
 - (c) Length of time to be spent in each activity.

C. Arrange a schedule of activities so that variation is adequate and the proper amount of time is devoted to each.

The following practices should be observed in arranging schedules:

1. Boys' and girls' programs should be coordinated so as to make efficient use of the facilities, equipment, and supplies available.
2. The same activity should be offered long enough for the pupils to become skilled in it.
3. Special effort should be made to provide activities which the pupils will use daily at home and on week ends.
4. Based upon a physician's recommendations, suitable activities should be provided for pupils who may be unfit to participate in the regular program.
5. Insofar as possible, the intramural program should be coordinated with the physical educa-

tion instructional period. Intramural contests in the various sports should be conducted in the intramural period throughout the time the sports are being taught in the physical education class. The intramural program, however, should not occupy the time of the physical education period.

6. After the schedule has been in operation for a part of the year, it may be desirable to change it to some extent. When this is done revision of the whole program should be made.
7. If it is necessary to make grade combinations in schools where enrollment is small (less than a total enrollment of 150 for the upper four grades), it will probably be best to combine grade 9 with 10 and 11 with 12. In very small schools it may be necessary to have the physical education period for all four grades at one time.
8. Plans should be made for a physical education demonstration or program with as many pupils taking part as possible. Such programs should be a natural outgrowth of physical education instruction, utilizing the activities regularly taught. One value in such programs is letting the public see the progress being made. The physical fitness day of American Education Week in November and National Health Day on May 1 are desirable days for such demonstrations.
9. Provision should be made to allow pupils to check their achievement against desirable physical fitness standards. Standards given in this bulletin will be useful for that purpose.
10. In schools where there are no facilities to take care of classes in bad weather, plans for these days should be made ahead of time. Activities such as the ones given under conditioning exercises can be carried on in classrooms, corridors and playrooms.
11. Every pupil participating in the regular program should have a vigorous workout during each physical education period.

D. Plan for the effective organization and use of the class period.

Each physical education period should be organized and operated in a way to provide a relatively long period of continuous participation in vigorous activities for all pupils. All routine activities, therefore, such as changing clothes, roll call, and moving pupils from one activity to another, should be carried out with

as little loss of time as possible. All possible "short cuts" in class routine should be used. Some suggestions concerning the arrangement and management of class periods are given in the following paragraphs.

A typical class period: (40 to 60 minutes)

1. Changing from street clothes to gymnasium suits—4 to 6 minutes
2. Checking attendance— $\frac{1}{2}$ minute
3. Marching—2 to 3 minutes
4. Conditioning exercises—8 to 12 minutes
5. Group activities—18 to 28 minutes
6. Showers and dress—8 to 10 minutes

SUGGESTIONS FOR CONDUCTING A CLASS PERIOD:

1. *Changing from Street Clothes to Gymnasium Suits.*

In this part of the period the chief objective is orderliness and speed. Careful organization will promote the former and a consistent policy of tolerating no delay will promote the latter.

If individual lockers are used, the organization problem resolves itself into making

proper assignments and checking regularly to see that lockers are kept clean and orderly. Sections of adjacent lockers may be assigned to each class, or if this creates crowded dressing conditions, alternate lockers may be assigned.

If a central cage system is used, baskets should be so arranged that they can be issued with no loss of time. Designated pupils can be of valuable assistance in distributing baskets. After some experimentation the teacher should set a definite time limit for students to be out of the locker room.

2. *Checking Attendance.*

The object is to enable the instructor to keep accurate records. Provision should be made not only for listing the pupils who are absent, but also for finding the ones who are not suitably dressed. Several plans for gaining this information are suggested here:

(a) Squad or group system:

- (1) Locker rooms. Place check sheets for the leaders at some designated place in the locker



room in order that absentees and those wearing unsuitable apparel may be listed while the pupils are dressing. When this system is used, pupils of one attendance group should be assigned adjacent lockers.

(2) Indoor or outdoor. Plan to have group in systematic order such as a line or file and check attendance.

(b) Number system:

(1) Paint on the gymnasium floor, wall, sidewalk, or fence enough consecutive numbers for the largest number of pupils in any one class. Each pupil is assigned a number corresponding to a number given him in the instructor's roll book. When attendance is checked pupils stand on their respective numbers. Vacant numbers indicate absence and can be quickly noted.

(2) Numbers corresponding to those in the instructor's roll book are assigned to pupils. Pupils in line call their own numbers as soon as the preceding number has been called, but not before. When there is a pause in the numbering, absence is indicated.

(c) Basket system:

When all gymnasium suits are issued through a central cage, the roll may be taken by the cage monitor when he issues the baskets.

3. Organizing a Class.

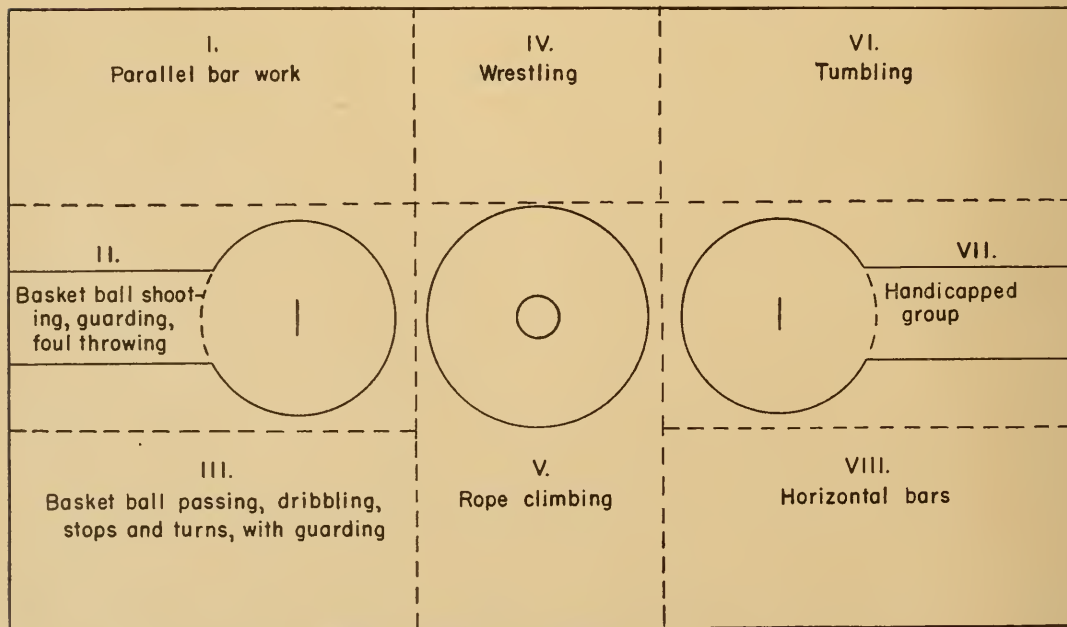
Before the class begins, the teacher should check carefully to see that all equipment is in position ready for use. Supplies should be easily accessible so that the leader or some other designated member of the group may obtain them before going to group activity.

The class may be divided into groups and a leader should be designated for each group. These groups and their leaders may be permanent for a semester, or if it seems desirable, for a shorter period of time.

In either event, the instructor should designate the area to be used and the activity to be carried on in that area. For example, wrestling may be specified at one place and volley ball at another. He can quickly assign the groups to the activity in which they are to participate. With permanent groups they can rotate from day to day or week to week.

If the group activities are outdoors where some distance is to be covered between the place of conditioning exercises and the place where the group activities are to be conducted, the group may run there under the direction of the group leader.

FLOOR PLAN FOR A CLASS PERIOD IN A SMALL GYMNASIUM





When the groups are re-formed daily the number which can participate in each activity can be designated and the pupils given their choice of the activity in which they wish to participate. Leaders are assigned to positions and pupils told to report where they wish. When the previously designated number for an activity has been reached, all late comers are instructed to report to some other group. Care must be exercised to see that those reporting to groups do so in an orderly manner. Pupils must also be required to change groups from day to day or on the same day if there is a general change of assignments.

The group leaders should be given special instruction by the teacher so that they are able to assume responsibility for their activities. Sub-leaders will need training so that someone can take charge when the leader is absent or participating in some other activity. When the groups begin their activity, the teacher should move from group to group taking advantage of teaching situations which arise.

4. Showers and Dress.

Except in rare instances it is not necessary to reassemble the class at the end of the period.

Pupils should go directly to the locker room, take showers, dry thoroughly, and dress quickly. Close supervision is necessary. The members of each class should be made responsible for seeing that the room is clean when they leave.

5. Methods in Activities.

The following suggestions concerning the methods of conducting activities are believed to be pertinent.

(a) *Marching.* The object of instruction in marching is to teach the pupils a few fundamental commands and movements which will enable the instructor to move them quickly and effectively to the places where they carry on activity. If the instructor is alert to the teaching possibilities, he may promote ease of movement, proper body carriage, group solidarity, and attention to commands during this period. While the pupils are learning the meanings of the various commands and how to do them, 5 or 10 minutes may be spent in marching. After that, 2 or 3 minutes of brisk drill should be enough for any one day. Commands should be clear and forceful. Movements should be brisk.

(b) *Conditioning exercises.* After the brief period of marching, the class should be brought into position for conditioning exercises. The instructor may demonstrate the exercises and lead them if he wishes. He may find it best, however, to give intensive training to a few pupil leaders and let them conduct the exercise while he moves among the pupils or behind them seeing that exercises are properly executed and giving special instructions wherever needed. During the course of the year a number of pupils should be given opportunity to lead the exercises.

At the beginning of the year more time will be required to teach the exercises and for the pupils to learn how to do them. After that, they can be used rapidly so that pupils get a thorough workout in about 10 minutes. It is recommended that a small number of exercises be used so that the pupils can learn them thoroughly, and become proficient in their use. If this is done it will not be necessary to consume time in explaining an exercise every time it is used.

The period for conditioning exercises may be varied occasionally to include cross-country running, obstacle races, and other suitable activities. On days when aquatics are scheduled, they may be entirely omitted.

If classes are as large as 50, it may be desirable to construct a platform about 4 feet high for the leader. This makes it possible for the entire class to see him. The leader should face the class and do the exercises in the opposite direction, e. g., he should do exercise with his left foot when class is doing the same exercise with its right foot.

(c) *Group and athletic activities.* After the marching and conditioning exercises are completed, the time left in the period may be used profitably in combative activities, group and team games, and athletic events.

E. Develop a suitable testing program

Tests serve to motivate pupils to make self-improvement, to give the teacher a record of what each pupil can do, and to classify pupils into groups of approximately the same abilities. Tests suggested in this bulletin are suitable for an effective testing program.

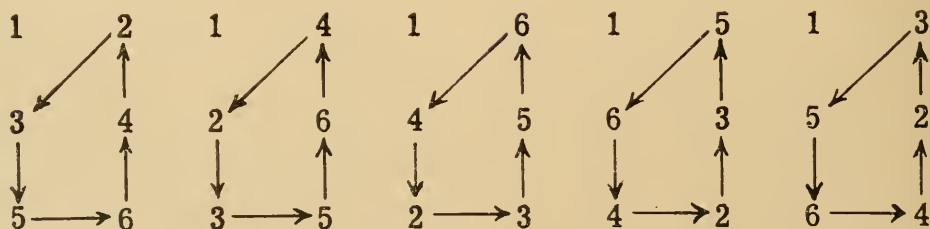
Class averages in a number of test items can be found easily by dividing the total of the scores of all pupils by the number of pupils in the class.

By comparing the records of a pupil with the class average and with his own previous records, a pupil may be motivated to practice harder. Records secured for this purpose also enable the instructor to determine the progress made by each pupil and make it possible for him to place a pupil in a group with others having similar ability.

The scores of the members of a group can be placed in order of rank from best to poorest. Pupils may then be divided into as many groups or squads as best suits the facilities to be used and activities to be offered. An arrangement of this kind permits pupils of approximately the same ability to be placed together in squads or groups.

F. Plan the intramural and interscholastic programs

The physical education period is a teaching period which during the present emergency is being devoted entirely to physical fitness. The intramural program should carry out this idea and should include only activities which



Round-Robin Tournament

contribute directly to physical fitness. A special period after school or, if there are transportation difficulties, during the regular school day, should be set aside for this purpose.

The object is to get as much pupil participation as possible. Where leagues are used, the round-robin type of tournament rather than the elimination type should be used. This will provide for greater participation. The diagram on page 12 illustrates the way the round-robin tournament operates.

<i>Odd number of teams</i>	<i>Even number of teams</i>
------------------------------------	-------------------------------------

- | | | |
|---|-----|--|
| 1 | 2 | The teams in opposite columns play each other. If there is an odd number of teams a bye should replace one of the numbers and be rotated in the same way that the numbers are rotated. Any number of teams may be used, but for best success, it will probably be desirable to use no more than 10 in one league. There can be any number of leagues. The "round" may be operated as many times as desirable. The winner of the league, if one is chosen, is determined on a percentage basis. |
| 3 | 4 | |
| 5 | Bye | |

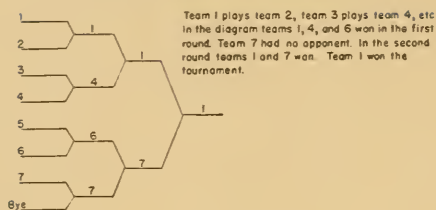
To stimulate interest it may be desirable to determine school champions from the league winners. The single and double elimination tournaments are useful for this purpose. The double elimination provides more competition and gives a loser a second opportunity to become champion. The single elimination tournament requires less time. In some situations it may be necessary to use this type of tournament to determine league winners.

The personnel of the teams may be determined in a variety of ways. A school should use the plan which seems best for its particular situation, home rooms, grades, clubs or organizations, independent groups, physical education classes, athletic association groups, and combination of groups. Each group should elect for a specified time a captain or leader who should be responsible for the team.

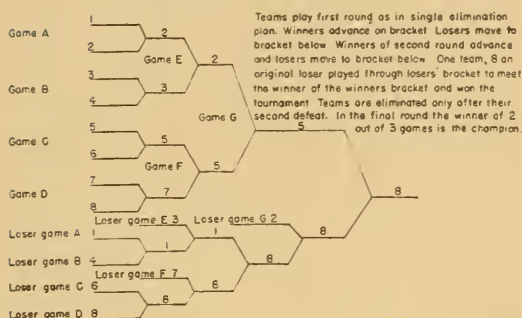
If the athletic coach is made responsible for intramural athletics, it will be necessary to conduct the contests so that the periods do not conflict with school team practice. If this conflict cannot be adjusted, some other fac-



THE SINGLE ELIMINATION TOURNAMENT



THE DOUBLE ELIMINATION TOURNAMENT



ulty member should assist with the intramural program. Otherwise, both intramural and interscholastic activities will suffer.

The interscholastic program should provide for greater participation wherever possible. Some schools are planning to have three or more teams in each sport participate in interscholastic athletics.

The interscholastic program should not be curtailed unless absolutely necessary. Readjustments should be made which will cut to a minimum the travel which is necessary. Long trips do not seem to be justifiable. The value to be derived from team play in developing the will to win and the courage to com-

pete in bodily contact with persons other than daily associates should not be lost sight of at this time.

6. Plans for cooperation with other agencies

The teacher should utilize community resources to a maximum in developing physical fitness. At the same time he should make himself and the school facilities available for the use of the community. Administrative policy, of course, must first make this possible.

The maximum use of facilities necessitates close cooperation on the part of many agencies in a community. The swimming facilities and leadership of the recreation department, for example, should be used. A plan for promoting swimming must be worked out by all who are involved. Likewise park and play areas should be available for use by the schools. School playground and gymnasiums, when not actually in use by the school should be available to the community and the leadership of the school should assist with programs for fitness for the entire community.

The total fitness program requires close cooperation between schools, medical and dental groups and other agencies. Teachers should have a clear understanding of the best way results can be achieved and should enter wholeheartedly into the cooperative program. Much of the success of a cooperative program depends upon administrative policy, but the alert and interested teacher can do much to develop proper policy and even more toward making it work effectively.

CHAPTER III

Selection of Pupils for Training

[Prepared by the United States Public Health Service]

THE PROGRAM outlined in this manual is set up for *healthy* high-school pupils. It is intended to be strenuous, even for the healthy. Therefore, it is too strenuous for those who are physically impaired. This means that a careful selection of students is needed before the training starts. It is necessary to differentiate between: (1) The healthy students who are able to take the program, and (2) those who are *not quite healthy* and therefore not able to take the program in its original form.

Physical training in the armed forces is, necessarily, more strenuous than any high-school program. It has, however, a safety factor which is absent in many schools. In the armed forces, the men have been found "healthy" by thorough medical examination and have ready opportunities for medical consultation. In many schools, the pupils have neither the one nor the other. In those schools, rigorous training is more risky than in the fighting forces.

Importance of Medical Examination

The medical examination eliminates avoidable hazards. In the Army it leaves the training officer with a group which is "healthy" to the best of contemporary knowledge. If in this group a man collapses, it is an unavoidable price paid for the progress of the group. If a high-school student collapses in training, without previous medical examination, that might have been avoided and cannot be excused by the importance of training.

Periodic medical examination of the students is a task beyond and outside the field of physical education. It is necessary for many reasons, and its need has been increasingly recognized. This development, however, was interrupted by the war. Now physicians are scarce, and in most high schools no physicians are available for periodic examinations. This means that the practical responsibility for the selection of the students will rest largely with the teacher of physical education.

Increased War Responsibility of the Teacher

This is the situation:

- (1) The program of harder physical training will put greater demands on the health of the students.
- (2) The schools will have greater difficulties in finding physicians for school examinations.

The combination of these two factors characterize the present situation. The teacher must make sure that he works with a healthy group; otherwise he risks more in the training than does any army officer.

The situation was different in the past when physical education in high schools was lenient. In peacetime training, it proved of no particular danger that many students had not had medical examinations for years (regrettable as it was for other reasons). Collapses and other health impairments as the results of over-exertion were rare. If, now, capacity programs are recommended with the



aim of going to the limit of the student's ability (or even beyond it), then the situation is different. The students must be divided into those who can take the training and those who cannot. If this task is left to the teacher, then he needs safer methods of discrimination than heretofore.

To repeat, by far the best solution would be a thorough "medical" examination, followed by a "physical" inspection by the teacher. But this is impossible in most schools, with the limited number of physicians available in the country. Even if the money were available, the physicians could not be found.

Selection by the Teacher

We must start from a simple fact: It is impossible to diagnose disease or the absence of disease without a thorough medical examination. An experienced physician and an experienced teacher of physical education may make brilliant snap-judgments, and both may

be often right, but neither of them can rely upon such a diagnosis, and neither should. No competent physician would dare to say: "This student is healthy," without having tested him by a careful examination.

The educator may object: "But the medical examination, too, may be wrong. We often find cardio-respiratory disturbances which the physician has not discovered." This is quite correct. Therefore, observation by the sports teacher is a valuable supplement to the medical examination. In fact, it is so valuable that cooperation between medicine and physical education is leading to a new borderline field. In Europe, where this development is more advanced, it has led to the specialty of "sports physicians," who often came from the ranks of physical education.

But we cannot say that because *more* than medical examination is desirable, *less* than medical examination is sufficient. The teacher cannot possibly make a safe discrimination between his healthy students and those who

are moderately impaired, no matter what methods he applies.

Such unfailing diagnosis, however, is not demanded of the teacher, if he treats the situation as what it really is, an *emergency situation in which he and his students are doing their best*. With this attitude he does not overplay his role and will have the backing of parents and physicians.

The teacher needs that backing, for if he cannot support his selection by medical examination of the *entire class*, then he needs *another pattern* for safe selection. This pattern consists of: (1) Close cooperation of the parents of the pupils, and (2) medical decisions for those whose health he doubts. Lacking periodic medical examinations, this is the safest and most efficient procedure which the school can choose.

Cooperation of Teachers and Parents

There are many ways to make the students enthusiastic and to win the cooperation of the parents for the program. The following paragraphs describe but one method which is adapted to the present situation:

If at the beginning of the term the teacher or principal addresses the class, deals with the patriotic duties of high-school youth, discusses the potential service in fighting forces or in civilian war work, and ends with an explanation of the new program of physical training as a preparation for both; then the reaction of the class is enthusiastic—as was experienced in universities with similar programs. And if now the teacher asks: “Who is healthy enough to join the new program?” practically the entire class will report at once.

Here is where the “selection” starts; for at this point the teacher may ask that each who wants to participate should bring a written note from his family physician stating that he is in good health. This will arouse lively objections, since many students have no family physician and have been healthy for years. Others will report that their family physician has left for the Army. But all these students will readily accept the “compro-

mise” of the teacher to bring at once a written statement from their parents that they are entirely healthy.

The teacher could start without either document; in fact, he can start without any formality. But the above or a similar method, adapted to the local situation, is a great assistance to his task of selection, wherever he works without a school physician. In some communities, the teacher might not need to follow this procedure; in others he does. The decision is up to him and his principal.

Cooperation of Teachers and Physicians

The teacher has no influence upon the choice of the private physicians to whom the parents send his pupils. But if he is skillful, he can learn from every physician what he needs to know. Moreover, he may obtain written reports which remain as permanent documents in his department.

Since most of our high schools have no periodic examinations, they have no medical records on the *healthy* students. But some of them carry excellent medical documents about those students who are *physically impaired*. Their departments of physical training have files which testify to a systematic correspondence between the school and physicians, clinics, and hospitals. The medical responses are complete enough to have the value of medical records and contain important information about the physical training of those students who are not quite healthy.

Such direct connections between teacher and treating physicians will become indispensable in the forthcoming time of intensive physical training. In small communities, the teacher should have connections with the private physicians and, for his needy cases and questions of organization, with the county health officer.

Techniques of Selection

The selection of pupils by the teacher of physical education should be based on three

factors: (1) Case history, (2) Physical inspection, and (3) Careful observation during the first weeks of training.

Case History

The precise case history of the student is far more important than is generally known. It should reveal all former illnesses and temporary disturbances. A comprehensive case history furnishes most of the considerations which the teacher needs for his selection; therefore, the teacher cannot be persistent enough in getting it *before* he inspects the individual student. He obtains this material:

A. From the student himself it is advisable to request a concise written report on:

(1) *All former illness*

(a) Report all kinds of illnesses you have ever had, and the time when they occurred. (For instance: Scarlet fever, January–February 1929; Rheumatism, October till December 1941)

(b) Have you ever been a hospital patient? When? How long? For what illness?

(c) Have you had treatment by a physician or a clinic? When? How long? For what illness? (Here you may have to repeat things which you answered to question (a).)

(2) *All present illness or physical impairment*

(a) Have you had medical treatment during the last 3 months? For what illness?

(b) Do you, now, have any complaint regarding your health? (For instance, headache, a weak heart, a weak leg, abdominal pain, menstrual pain, etc.)

(c) Have you been asked to report to any physician or clinic for further observation? For what disturbance?

(3) *Special wishes for physical improvement*

What special wishes do you have for improving your physical condition? (Do you feel lacking in strength or endurance? Do you want to put on or lose weight? etc.)

(4) *General remarks which the student wants to add regarding his condition.*

B. From the parents (see below)

C. From medical documents.

To obtain the case histories as precisely and quickly as possible, questions of the above type may be dictated to the students, and they may be told to answer them at home. If possible (and psychologically advisable in the respective communities), these brief reports may be *countersigned by one of the parents*. This increases the value of the report; in addition it encourages parents to write informative letters to the teacher or to get in personal touch with him. If the pupil has a home room teacher, he may add a brief comment to the report. Now the teacher of physical education may study these reports carefully. Rather than inspecting his students before he is familiar with the reports, he should postpone the physical inspection for a day or two.

Evaluation of the Reports

The evaluation of the reports is not too difficult, if the teacher spends time and thought on them. He may select and mark with colored pencil items which, in his judgment, are important for the student's present condition. He will disregard, for instance, measles or even diphtheria, if they have been overcome years before without reported after effects. He will, however, be keenly aware of an old heart disease, tuberculosis, or any nervous disease. In short, *he will mark all those facts which, from his knowledge of school hygiene and school health work, may be of influence upon the present condition of the student.* And he may summarize these facts with a pencilled note at the end of each report.

With this report at hand (and any previous medical document regarding the case), the teacher is well prepared to inspect the student.

Physical Inspection

The physical inspection in this program has one major objective: *to decide whether or not the student is able to take the strenuous program of physical training.* If, on the basis of history and inspection, the student seems *entirely healthy*, then he may be admitted to the

training. If, on the basis of either one, any physical impairment is found, or even the suspicion of an impairment, then the parents should be informed, and the student should bring a letter from a physician. For the sake of security, the teacher should not risk any decisions regarding, for instance, heart trouble or the strength of an abdominal scar. No medical officer of the armed forces would risk such a decision, and the teacher does not need to risk more.

Some Special Pointers for the Inspection by the Teacher

The following suggestions are confined to the practical aim of this inspection, to the decision regarding physical training.

(1) *The general appearance of the body* is an important factor: but the "type" alone is not decisive. A muscular student may tire easily, and a slender, weak-looking student may be surprisingly enduring. Many of these qualities are inherited; this is important for physical education, because it is very difficult to influence inherited qualities by training.

The *thin students* and the *fat students* require individual decisions. In both cases, the teacher should refrain from wholesale rules regarding physical training, for leanness as well as obesity are caused by a great variety of conditions. A thin student may be strengthened by physical training; but just as well he

may need rest and special medical measures. A fat student may or may not lose weight by training; in addition, he may be harmed by physical strain. Both the thin and the fat pupils should be sent to physicians: medical and laboratory examinations may arrive at a correct analysis of the individual case.

For judging the general appearance, knowledge of the *case history* is important. A thin boy may be entirely healthy, but if he has suffered from tuberculosis, or if tuberculosis is in his family, his leanness may have a different significance.

(2) *Weight and height* of the student may be taken, and the circumference of the thorax may be measured at deepest inspiration and expiration. Though these figures have no significance for the selection—the variety of types is too great—they are of interest in the re-examination of students during the training.

(3) Systematic tests of *vision and hearing* do not belong to this examination. Their bearing on physical education is limited to these grave cases which, by their defect, would risk accident in the training. (This refers to visual acuities of less than 20/50 after correction with glasses or to hearing defects which make it impossible to understand commands.) These gravest cases are known to the class teacher and should be reported to the teacher of physical education. Dubious cases should be decided by the physician.

(4) Pupils with considerable *enlargement of the tonsils* should be sent to a physician;

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they are fit for training either with medical permission or after short treatment.

(5) The condition of the *teeth*, while important for other reasons, has no relation to the selection for physical training.

(6) *Shoulder girdle and arms* require inspection for the training rather than for the selection. The great majority of pupils have well-trained legs but weak and poorly trained upper extremities. The improvement of this condition is an important task in the present training. It should also be considered in girls for their prospective work in war industries.

(7) *The shape of the chest* has little significance for the selection. The form of the thorax is hereditary, and a pupil with a flat chest may be completely healthy. If the case history has made certain that there is no tuberculosis in the history of the pupil or his family, then only conspicuous deformities of the chest need medical decision. In all healthy pupils, no matter what their thorax form may be, the physical training can greatly improve respiration and respiratory musculature.

(8) *Heart function and circulation* are the most important problems in strenuous physical training. Their discovery is rightly entrusted to medical examinations in the armed forces as well as in the school health service.

But how can the teacher of physical education suspect a disturbance of heart function or circulation, if no medical examination has preceded his inspection? The following consideration may be of some assistance:

(a) The *case history* is again of particular importance. If the pupil has ever suffered from a heart disturbance of any kind, he needs a new medical examination before being admitted to capacity training. Attention should also be paid to *rheumatic fever* in the history, no matter when it had occurred. Rheumatic fever is frequently the cause of organic heart disease. Recent statistics have shown that its significance as a forerunner to heart disturbances has not been fully appreciated in the discovery of cardiacs in schools.

(b) Since the teacher cannot examine the heart, he depends upon observing the circulation. In doing so, he should keep in mind: the circulation

sustained by a weak heart, even by a heart with an organic defect, may be entirely sufficient if the body is not in action. It may be compensated so well that even the pupil's pulse feels completely normal. The disturbance may clearly appear, however, after physical activity even of short duration.

Therefore the teacher should keenly observe his new students after physical activities. He should pay attention to changes which may be caused by a circulatory disturbance:

- (1) Is the student panting unduly? (An insufficient circulation does not bring enough oxygen to the tissues.)
- (2) Is any rapid movement of the heart visible on the left side of the thorax?
- (3) Does the student look conspicuously pale and exhausted?
- (4) Is the *pulse* speeded up abnormally or has it become distinctly irregular? Feeling the pulse does not belong to the duties of the teacher of physical education; but it can be assumed that most teachers have occasionally practiced it. *Irregularities of the pulse* require medical decisions; they are often more conspicuous after physical activity. The *speed of the pulse* varies greatly in different individuals. (The pulse rate of the healthy varies from below 60 to over 100 per minute.) The often quoted average of 72 per minute is too low for healthy adolescents, where the average can be assumed to be at least 10 beats more. In girls it is about 7 to 8 beats faster than in boys. After physical activity the pulse rate goes up; that amount too is highly variable, so that only an excessive increase—for instance, an increase of more than 20 beats per minute after short, moderate exercise—is suspicious. Quite generally the quickened pulse returns to normal after a few minutes of rest. If, for instance, 3 minutes after running, the pulse is still conspicuously speeded up, then the condition is questionable enough to deserve medical examination.

There are elaborate tests for the circulation, set up by physiologists and physical educators. Some of these tests are highly competent and may be added to the above considerations. But the teacher should never forget that no single method can cope with a problem which is highly complex even in the hands of specialized physicians.

(9) *Abdominal scars* from operations (in adolescents mainly appendicitis operations)



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are solid in the great majority of cases and can be disregarded after a year. In some cases, however, they form weak spots of the abdominal wall and present the danger of ruptures (see below). It is impossible to differentiate a weak scar from a solid scar without medical examination, and the teacher should regard all abdominal scars with certain concern. In his present selection for strenuous training, he is safer if he obtains a note from a physician stating that no further caution is necessary.

(10) A rupture (*hernia*) is a protrusion of intestines through a weakened part of the abdominal wall: it is covered by normal skin and may appear as a small lump to the inspecting eye. The most frequent type of rupture among boys is the *inguinal hernia*, located in the groin. Girls too may have inguinal ruptures, but far less frequently. The rupture appears as a bulging only in its later stage: in

its early stages it can be recognized only by careful examination, which is not possible for the teacher. Hence attention should be paid to a dragging sensation of pain in the groin. A hernia of a high-school pupil should be operated on, as soon as it is diagnosed by a physician. With an untreated hernia the student is not fit for rigorous training. The operation, however, implies no risk or pain: and a few weeks afterwards the student is ready for any kind of training. Boys should be told that the operation is required for service in the armed forces.

Another type of hernia is the *umbilical* (*navel*) *hernia*, occurring in both boys and girls. In early childhood, a navel hernia may improve spontaneously: in high-school age, however, it requires operation. The operation is even less serious than that for an inguinal

hernia, and the student should be influenced to have it performed.

(11) *Menstrual disturbances* in high-school girls are seldom a reason for general rejection from a strenuous training program. With few exceptions, the girls can be admitted to their new program, if the regulations for the menstrual period are flexible and individual enough. This is necessary, for the physical constitution of adolescent girls is too individual to permit rigid standard rules for the group.

In weighing these individual variations, one should not forget that even gynecological examination substantiates only part of the disturbance, while most of the hormonal side is still highly problematic. This includes individual lack of strength and intensity of pain. Thus three groups are indicated:

- (a) The great majority of the pupils are able to submit to the customary regulations of the school regarding periodic excuse from physical training.
- (b) A second group is entitled to individual consideration and prolonged excuse during the menstrual period.
- (c) The gravest cases need medical advice.

(12) Orthopedic consideration regarding the *spine* is familiar to the teacher of physical education. There is, however, one special condition for which he should watch in his inspection; the *angular* prominence of one or two vertebrae. Such an angular prominence requires medical examination and in many cases X-rays, for it may be the symptom of an old tuberculosis of the spine, which might flare up under strenuous training. *Angular* deformities of the spine are always suspicious, because they may be caused by serious disease of one or two vertebrae. By recognizing such a spine as suspicious and suggesting medical examination the teacher may save the life of the student.

(13) The inspection of *pelvis* and *legs* broaches in every case questions regarding the training of legs and feet. The teacher is familiar with many of these questions; in fact,

he has studied them with particular care. Therefore, it is useful to recall that he should be cautious in judging *orthopedic disturbances*. His "diagnosis" may be right in many cases, but it is bound to be wrong in others. This may be illustrated by two examples:

A slight pain in the hip may seem to be well explained by a flat foot or a knock knee. Instead, it may be caused by a specific adolescent disturbance in the hip joint, which the teacher cannot possibly diagnose. Or a pain in a flat arch may seem characteristic of flat foot. Instead, it might be caused by a tuberculosis of one of the foot bones.

This leads to the general advice: The teacher should keep in mind that grave afflictions of a very different nature, such as tuberculosis or growths in bones, may start slowly and with apparently harmless symptoms. However, the most dangerous affliction, malignant growth, often starts without any pain. This means that *every deviation from the norm*, harmless as it may seem, should be transferred to medical examination. The teacher of physical education may well be the only person who, during the next year, will inspect high-school students.

Observation in Training

During the first weeks of training, the teacher has a great opportunity to supplement or modify his selection. *For at least 4 weeks, he should observe the students, as if the process of selection were not yet concluded.* In this period he may well discover cardio-vascular disturbances which nobody had suspected in the student. Here his observation may furnish the first and, perhaps, the only material by which a serious affliction can be discovered.

Grouping of Pupils

The modern teacher of physical education is familiar with the concept that training should be adapted to the individual. Therefore the physical inspection also serves the task of find-

ing the type of training which is best suited to the individual student.

This program, however, deals with capacity training of healthy youth and consciously refrains from individual modifications. The selection, therefore, must conform to this objective; it will lead to the differentiation of two groups: (1) The group which is physically able to begin the training, and (2) a group which, at this moment, is not physically able to take it. This group is too heterogeneous and too important from the medical, social, and psychological point of view to be discussed as a side issue of this program.

It will depend upon local school conditions whether part of this second group can be trained together with the healthy group. In that case, the rules of the program for the healthy must be considerably modified in its application for the others. The more rigorous the requirements for the healthy, the more individualized and considerate must be the measures for the weak. This will be discussed in a later publication.

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Physical Standards for the Armed Forces

The physical requirements for the different branches of the two armed services vary so widely that it would be difficult to gather them all together here. Furthermore, since changes are made from time to time, any statement would be out of date before long. The general requirements for the Army and Navy may be obtained from recruiting stations, and school health guidance authorities should keep in touch with developments so as to be able to give helpful advice. They should, however, exercise particular care to make clear to the boys that only Army and Navy officials can speak authoritatively.

In general, the requirements for flight training in the air services are the most demanding

and stringent, and since it would be a waste of time and of teaching facilities to take boys into pre-flight aeronautics courses who clearly will not be able to qualify as aviation cadets, the following statement, prepared jointly by the medical departments of the Army and Navy air services, is appended.

In connection with the physical screening of boys for pre-flight work as potential pilots, bombardiers or navigators, the high school will, of course, wish to include all who have a fair chance of meeting the physical requirements at some later date, and to exclude only those who will clearly not be able to meet them, in spite of normal development or special remedial action in the meantime. It is, therefore, unnecessary to state the physical requirements in great detail, or to call for a lengthy physical examination, especially at a time when the medical profession is greatly overworked. The following general statement of requirements will serve as a guide.

For the Army—

Visual acuity 20/20 bilateral.
Normal color vision.
Unimpaired ocular muscle balance.
Unimpaired optical organism, anatomically and mechanically.
Good respiratory ventilation and vital capacity.
Hearing 20/20 each ear.
Serviceable non-carious teeth with good occlusion.
(Consult nearest Air Force Station or Aviation Cadet Examining Board for minimum dental requirements).
A stable equilibrium.
A sound cardiovascular system, nervous and organic.
A well-formed, well-adjusted, and coordinated physique.
Height: Minimum, 60 inches; maximum, 76 inches.
(Height, requirements for fighter pilots 64''-69''; for other pilots 64''-76''; for bombardiers and navigators 60''-76'')

An integrated and stable nervous system.

For the Navy—

Normal vision 20/20 each eye, unaided by glasses.
Normal hearing.
Normal color vision.
Unimpaired ocular organs and ocular muscle balance.



Minimum height requirements, 64 inches: maximum height requirements, 76 inches.

Minimum weight requirements, 124 pounds: maximum weight requirements, 200 pounds. Weight in excess of 200 pounds may be acceptable provided such weight does not constitute obesity to extent of physical handicap.

Normal respiratory ventilation and vital capacity.

A sound cardiovascular system, nervous and organic.

Minimum blood pressure, 105; maximum, 135.

Freedom from rupture or evidence of abnormal relaxed rings, conducive to rupture.

Minimum of 18 sound teeth, 2 of which shall be opposing molars. (All incisors or satisfactory replacements).

A well-formed, well-adjusted coordinated physique, a stable equilibrium, an integrated and stable central nervous system.

No history indicative of susceptibility to hay fever or asthma.

Present height-weight requirements for applicants for air-crew training between the ages of 18 and 20 are incorporated in the following chart:

ARMY

<i>Height in inches</i>	18	19	20
	<i>Min.</i>	<i>Stand.</i>	<i>Max.</i>
60.....	105	117	146
61.....	107	119	149
62.....	109	121	151
63.....	112	124	155
64.....	114	127	159
65.....	117	130	163
66.....	120	133	166
67.....	123	137	171
68.....	127	141	176
69.....	130	145	181
70.....	134	149	186
71.....	139	153	191
72.....	141	157	196
73.....	145	161	200
74.....	148	165	200
75.....	152	169	200
76.....	156	173	200

NAVY

<i>Height in inches</i>	18	19	20
64.....	115	120	125
65 and under 68	119	124	129
68 and under 70	124	129	134
70 and under 72	130	135	140
72 and under 74	135	140	148
74-76.....	142	145	153

Minimum: 10 pounds under the standards shown above.

Maximum: Variations above the standards are disqualifying if sufficient to constitute such obesity as to interfere actually or potentially with normal physical activity.

Many of these requirements may be checked by suitably designated teachers. If in addition a brief examination of heart, lungs, and blood pressure could be given by a qualified physician, the practical needs of the situation would be met, and at the same time, advice on remedial defects such as weight and teeth, could be obtained.

Attention is called to the book "Are You Fit to be a Pilot?" by Ermi L. Ray and Stanley Washburn, Jr., (Wilfred Funk, N. Y., 1941) which contains many eye, hearing, balance, and coordination tests in a form suitable for administration by any responsible adult. While this book is in no sense official, a boy who can pass these tests will probably be able to meet those phases of the qualifying physical examination for aviation cadets as administered by a flight surgeon.

It should be emphasized again that in the opinion of the Army and Navy air services no boy should be excluded from pre-flight training in high school because of physical disqualification which time and positive remedial action may well cause to disappear.

CHAPTER IV

Activities For Boys

THE ACTIVITIES for boys that are recommended in this chapter have been selected in terms of the previously stated objectives which are to develop (1) strength, endurance, stamina, and bodily coordination, and (2) physical skills that will be of direct value and use in the armed forces and war work.

The traditional objectives of physical education are usually classified under the headings of (1) developmental, (2) recreational, and (3) educational. The material included in this chapter is directed definitely toward the accomplishment of the first objective. It seeks to develop strong and rugged boys who can become excellent soldiers or sailors promptly after entering the armed services or efficient workers if they are rejected by the Army and Navy. The recreational and educational objectives of physical education are important and should be stressed in a school program during times of peace. The urgency of the present situation makes it wise, however, to emphasize the developmental aspects of physical education.

In connection with the wartime program of physical education for boys the following items are emphasized:

1. Five periods each week of instruction in physical education activities for all high-school pupils.
2. The continuous observation of all pupils by the teacher and a more complete inspection by a physician of all individuals who appear to deviate from the normal.
3. Increased emphasis on interscholastic and intramural athletics, road work, hard physical labor, and camping.
4. The use of vigorous and rugged activities instead of many of the recreational sports that have been used.



The activities are grouped under four headings. These are: (1) Aquatics; (2) gymnastics; (3) combative activities; (4) sports and games.

Interscholastic Athletics

It is recommended that the program of interscholastic athletics be expanded to meet wartime demands. Probably never before has there been so great a need to develop in boys the spirit of competition and the will to win. Interscholastic athletics provide unusual opportunities to develop these characteristics. It is suggested, therefore, that the necessary modifications be made in the interscholastic athletic programs to permit many more pupils to participate.

Some practices which have been adopted by schools to increase participation and to meet the restrictions now placed upon transportation are:

1. The number of teams representing a school in a given sport has been increased. Instead of one team competing, arrangements are being made so that four or more may compete.
2. Schedules have been arranged so that a school plays another school more than one time in the same season.
3. Schedules have been arranged so that all schools played are conveniently located on a railroad line and the distance traveled is short.
4. Leagues have been formed of schools in the same geographical area and all games are played within the league.

It is believed that important criticisms of interscholastic athletics may be met by expanding the program rather than curtailing it, by giving more opportunity to participate in rugged activity rather than less.

Aquatics

Our armed forces are operating under conditions that demand an ability on the part of

the individual to handle himself successfully in the water while fully clothed. The success of the program depends upon the maximum use of all available school and community facilities.

Objectives

1. To stay afloat for a long period of time.
2. To swim under water.
3. To swim long distances without exhaustion.
4. To enter the water without submerging.
5. To be at home in the water fully clothed.
6. To render assistance to another person in water.

Organization

1. Classes should not exceed 50 boys.
2. Classes should be subdivided into small units.
3. Wherever possible the "Buddy" system should be used which provides for boys to be paired and required to stay near each other in the water.
4. Adequate check in and check out of swimmers is essential for safety.

Activities

Staying Afloat

All boys should be taught to stay afloat by:

Floating. See American Red Cross *Swimming and Diving Manual*, p. 59.

Breathing and Breath Holding. Ibid., p. 19-20; 54.

Sculling. Ibid., p. 69.

Treading Water. Ibid., p. 149.

Fundamental Strokes

1. *Side stroke*: Valuable for life saving and swimming with equipment. See War Department. *Basic Field Manual, FM 21-20, Physical Training*, March 6, 1941, p. 102, and American Red Cross, *Swimming and Diving Manual*, p. 117.
2. *Breast stroke*: Useful in reconnaissance and life saving. See War Department, *Basic Field Manual, FM 21-20, Physical Training*, March 6, 1941, p. 111, and American Red Cross,

Swimming and Diving Manual, p. 85, 95, and 104.

3. *Back stroke*: An excellent stroke for a tired swimmer and for swimming with military equipment. See War Department *Basic Field Manual*, FM 21-20, *Physical Training*, March 6, 1941, p. 108, and American Red Cross *Swimming and Diving Manual*, p. 100.
4. *Trudgen stroke*: A powerful and valuable stroke for distance swimming. See War Department *Basic Field Manual*, FM 21-20, *Physical Training*, March 6, 1941, p. 107, and American Red Cross *Swimming and Diving Manual*, p. 127.
5. *Endurance swimming*: Developed by the use of fundamental strokes over long distances, and by the use of the crawl stroke.
6. *Swimming under water*: Valuable in reconnaissance and escaping hazards. Boys should be able to swim not less than 20 feet under water fully clothed.
7. *Swimming fully clothed*: Practice all of the above fully clothed.

Entering the Water

This term is used, rather than diving, to meet the needs of the war situation. While the practice of diving does develop skill and coordination, emphasis should now be placed upon jumping into the water with and without clothing.

1. Jump feet first.
2. Jump without submerging: Used to keep equipment dry.
3. Dive head first.

Lifesaving

See American Red Cross *Life Saving and Water Safety*, 1937, and War Department *Basic Field Manual*, FM 21-20, *Physical Training*, March 6, 1941, p. 119.

Suggestions

1. The teacher of swimming must be familiar with lifesaving practices.
2. Safety precautions should be observed.
3. Teaching practices suggested in the manuals of the American Red Cross and War Department *Manual FM 21-20* should be followed.

4. For practice in swimming fully clothed, shirt, trousers, and shoes are needed. They should be white or fast-dye, and shed as little lint as possible. Clothing should be laundered before use in the pool.

Gymnastics

This phase of the program contributes readily and easily to improved muscle tone and bodily development. When properly conducted, gymnastics are highly beneficial.

The activities which follow are based on the need for body conditioning, particularly the development of the musculature of the shoulder girdle, abdominal region, and legs.

Objectives

1. To develop endurance.
2. To increase strength.
3. To develop agility.
4. To develop specific skills applicable to the war situation.

Activities

Marching and Running

Marching—The purposes of marching are to teach some fundamentals of military tactics, and to move groups quickly and efficiently from one place to another. Marching, except for these two purposes has little value in this program. The descriptions given in the following paragraphs are taken from the War Department *Basic Field Manual FM 22-5, Infantry Drill Regulations*, August 4, 1941.

Position of attention. Command. ATTENTION!

- (a) Heels on the same line and as near each other as the conformation of the man permits.
- (b) Feet turned out equally and forming an angle of 45 degrees.
- (c) Knees straight without stiffness.
- (d) Hips level and drawn back slightly; body erect and resting equally on hips, chest lifted

and arched; shoulders square and falling equally.

- (e) Arms hanging straight down without stiffness so that the thumbs are along the seams of the trousers; backs of hands out; fingers held naturally.
- (f) Head erect and squarely to the front; chin drawn in so that axis of the head and neck is vertical; eyes straight to the front.
- (g) Weight of the body resting equally on the heels and the balls of the feet.
- (h) In assuming the position of attention, the heels are brought together smartly and audibly.

At ease.

- (a) At the command, "AT EASE," the right foot is kept in place. Silence but not immobility is required.

Facings.

- (a) To the flank—(1) The commands are: 1. Right (Left), 2. FACE. At the command FACE, slightly raise the left heel and the right toe; face to the right, turning on the right heel, assisted by a slight pressure on the ball of the left foot. Hold the left

leg straight without stiffness. (TWO) Place the left foot beside the right. (2) Execute LEFT FACE on the left heel in a corresponding manner.

- (b) To the rear—The commands are: 1. About, 2. FACE. At the command FACE, carry the toe of the right foot a half-foot length to the rear and slightly to the left of the left heel without changing the position of the left foot; weight of the body mainly on the heel of the left foot; right leg straight without stiffness. (TWO) Face to the rear, turning to the right on the left heel and on the ball of the right foot; place the right heel beside the left.

Dress—(Alignment)

- (a) If in line, the commands are: 1. Right (Left). 2. DRESS. 3. Ready. 4. FRONT. At the command DRESS each man, except the one on the left, places his left hand on his hip, and turns his head to the right (left) and aligns himself. At the command 1. Ready, 2. FRONT, the arms are dropped quietly and smartly to the side and heads are turned to the front.



Steps and marchings—

General

- (a) All steps and marchings executed from the halt, except the right step, begin with the left foot.
- (b) The instructor indicates the proper cadence when necessary by calling, "One," "Two," "Three," "Four," as the left and right foot, respectively, strike the ground.

Quick time

Being at a halt, to march forward in quick time, the commands are: 1. Forward, 2. MARCH. At the command Forward, shift the weight of the body to the right leg without perceptible movement. At the command MARCH, step off smartly with the left foot and continue the march with 30-inch steps taken straight forward without stiffness or exaggeration of movements. Swing the arms easily in their natural arcs, 6 inches to the front and 3 inches to the rear of the body. The cadence of quick time is 120 steps per minute.

Double time

- (a) Being at a halt or in march in quick time, to march in double time the commands are: 1. Doubletime, 2. MARCH. (1) If at a halt, at the command Double Time, shift the weight of the body to the right leg without perceptible movement. At the command MARCH, raise the forearms, fingers closed, knuckles out, to a horizontal position along the waistline, take up an easy run with the step and cadence of double time, allowing a natural swinging motion to the arms. Cadence of double time is 180 steps per minute. The length of step in double time is 36 inches.
- (2) If marching in quick time, at the command MARCH, given as either foot strikes the ground, take one more step in quick time and then step off in double time.
- (b) To resume the quick time from double time, the commands are: 1. Quick Time, 2. MARCH. At the command MARCH, given as either foot strikes the ground, advance and plant the other foot in double time; resume the quick time, dropping the hands by the side.

Halt

- (a) To halt when marching in quick time, the commands are: 1. Squad, 2. HALT.

At the command of HALT, given as either foot strikes the ground, execute the halt in two counts by advancing and planting the other foot and then bringing up the foot in rear.

- (b) To halt when marching in double time, the commands are: 1. Squad, 2. HALT. At the command HALT, given as either foot strikes the ground, advance and plant the other foot as in double time, then halt in two counts as in quick time.
- (c) To halt from side step the commands are: 1. Squad, 2. HALT. At the command HALT, given as the heels are together, plant the foot next in cadence and come to the halt when the heels are next brought together.

Mark time

The commands are: 1. Mark Time, 2. MARCH.

- (a) Being in march, at the command MARCH, given as either foot strikes the ground, advance and plant the other foot: bring up the foot in rear, placing it so that both heels are on line, and continue the cadence by alternately raising and planting each foot. The feet are raised 2 inches from the ground.
- (b) Being at a halt, at the command MARCH, raise and plant first the left foot, then the right as prescribed above.
- (c) Mark time may be executed in either quick time or double time.
- (d) The halt is executed from mark time as from quick time or double time by taking 2-inch vertical in place of 30-inch horizontal steps. Forward, halt, and mark time may be executed in either quick time or double time.

Side step

Being at a halt the commands are: 1. Right (Left) step, 2. MARCH. At the command MARCH, carry the right foot 12 inches to the right; place the left foot beside the right, left knee straight. Continue in the cadence of quick time. (The side step is executed in quick time from a halt and for short distances only).

Face in marching

- (a) To face to the right in marching and advance from a halt, at the command of execution of the movement, turn to the right on the ball of the right foot and

- at the same time step off in a new direction with the left foot with a half step, full step, or in double time, as the case may be.
- (b) To face to the right in marching and advance, being in march, at the command of execution, given as the right foot strikes ground, advance and plant the left foot, then face to the right in marching and step off in the new direction with the right foot with a half step, full step, or in double time, as the case may be.
- (c) To face to the rear in marching, being in march, the commands are: 1. To the Rear, 2. MARCH. At the command MARCH, given as the right foot strikes the ground, advance and plant the left foot; turn to the right about on the balls of both feet and immediately step off with the left foot.

Being in Column of Threes (or Fours), Change direction

The commands are: 1. Column Right (Left), 2. MARCH. The right flank man of the leading rank is the pivot of this movement. At the command MARCH, given as the right foot strikes the ground, the right flank man of the leading rank faces to the right in marching as prescribed in paragraphs dealing with "Face in Marching" and takes up the half step until the other men of his rank are abreast of him, then he resumes the full step. The other men of the leading rank oblique to the right in marching without changing interval, place themselves abreast of the pivot man, and conform to his step. The ranks in rear of the leading rank execute the movement on the same ground and in the same manner as the leading rank.

Running. Running develops endurance, and some forms given here develop agility and specific skills in getting over or around obstacles. Where pupils are required to run 100 yards or more, special care must be exercised. Before permitting pupils to run any of the longer distances, several weeks of preliminary training should be demanded.

Training in long-distance running should be preceded by a medical examination by a properly qualified physician. Where such an examination is impractical, the teacher should administer the Pulse Rate of Recovery Test

before the training period begins. After 1 week of training, the test should be given again. Unless the second test shows the pupil's pulse returns to normal more quickly than at the time of the first test, serious consideration should be given to the failure of the cardio-vascular system to respond to training before permitting the pupil to continue with the training program. Advice of a qualified physician should be secured if possible. No boy in the ninth grade should be permitted to train for or attempt to run distances greater than 220 yards. The younger boys in grade 10 as well as those who appear to be less mature physically should either be barred from running 440 yards or longer distances or be given more careful attention than the older more mature pupils.

In general, the training program should be characterized by starts, short bursts of speed, and jogging on the grass during the preliminary training period. In no instances should pupils be permitted to run 100 yards at top speed before the end of the second week. In the 440-yard run and 880-yard run, if the full distance is covered, only the first half should be run at top speed and the second half jogged.

Road work.—Road work is a combination of hiking and running to develop the ability to cover long distances in the shortest possible time. The starting distance should be from 3 to 5 miles. This hike is a brisk walk, interspersed with running (not jogging). At each practice the distance should be covered in less time, and gradually increased until boys are able to cover 8 to 10 miles in fast time.

Suggestions.

There should be no rest periods. When beginning road work the period of hiking will be long and of running short. With increased practice, the running time will increase as the hiking decreases.

Cross country.—The course may be over hills, through woods, across brooks, over open fields, or parks and golf courses. It is *not* run-

ning on city streets or highways.

Suggestions.

1. Warm up before the practice jaunt.
2. Wear full-length sweat clothing on cool days.
3. Shorten the stride going up hill.
4. Breathe through mouth and nose.
5. Use an easy relaxed stride.
6. After the run continue to walk a short distance in the fresh air before using the shower.

Steeple chase.—Steeple chase is a set form of obstacle racing using hurdles and water jumps. The National Collegiate Athletic Association and the Amateur Athletic Union publish rule books that describe these events and give the rules for them.

Obstacle.—Obstacle running may be done either indoors or outdoors. Each school may set up its own course using any available obstacle. Indoors, the horse, parallel bars, buck, benches, ropes, and ladders are usable. Outdoors, the obstacles may be hurdles, fences, ditches, walls, and posts. (See appendix for diagram of courses.)

Suggestions.

1. Common sense and caution must be used in selecting obstacles.
2. Boys must be skilled in surmounting each obstacle before starting the entire course.
3. The course may be used for conditioning and for competition.
4. Competition may be against time, individual against individual, or group against group.

Relays.—Relay races add interest and competition to the program as well as vigorous exercises. Teams should not number more than eight members so that few will be standing idle. The distances in the relays should be long enough to require the players to put forth sustained and vigorous effort. The distances involved in the different relays may be progressively increased as the boys improve in physical condition.

Rather than disqualify a team when infractions occur, such as running out to meet the next runner, it is better to charge a foul and

then add the number of fouls to the team's order of finish.

1. Shuttle Relay

Formation

- (a) Divide class into groups of not more than eight in each group.
- (b) Establish starting lines at opposite ends of the running space.
- (c) Place half of each group (ones) behind the opposite starting line. Players in each group stand one behind the other.

Description

At the signal "Go," the first runner of the "ones" runs forward, crosses the starting line at the opposite end, touching off the first of the "twos." He runs forward, crosses the starting line and touches off the second of the "ones." Each runner does the same in turn. The team finishing first wins.

2. Jump Stick Relay

Formation

- (a) Divide class into groups of not more than 8 in each group.
- (b) Station runner number 1 about 10 yards in front of his team, holding a wand or broomstick (about 3 feet long).

Description

At the signal "Go," number 1 runs toward his team, holding one end of the stick. When he reaches his team, number 2 takes hold of the other end of the stick. Together they run toward the end of their team, holding the stick about a foot from the ground so that each player jumps over it as it moves along. Number 1 now stays at the end of the line. Number 2 takes the stick and runs to the starting point (10 yards in front). He repeats number 1's action. Each player does the same until number 1 is back at the starting line.

3. Duck Waddle

Formation

- (a) Divide class into groups of not more than 8 in each group.
- (b) Establish a turning point about 5 yards in front of a starting line.

Description

The first player assumes a knees-bent position. In this position on the signal "Go," he waddles to the turning point and returns, crossing the starting line. He touches off the next player who does the same. This continues until each one has had a turn. The team finishing first wins.





4. Bouncing

Formation

Same as for Duck Waddle

Description

The first player assumes knees-bent position. At the signal "Go," he travels in short bouncing jumps to the turning point and returns, crossing the starting line. He touches off the next player, who does the same. Continue until each one has had a turn. The team finishing first wins.

5. Crab-walk

Formation

Same as for Duck Waddle.

Description

The first player sits down supporting himself on his hands and feet, facing upward, feet on the starting line and toward the turning point. At the signal, "Go," he moves i. e., feet first, to the turning point and returns, crossing the starting line. He touches off the next player who does the same. Continue until each one has had a turn. The team finishing first, wins.

Variation: The same, but with hands leading instead of feet.

6. Wheelbarrow

Formation

Same as for Duck Waddle.

Description

At signal "Go," the first player places his hands on the floor, extends his legs backward in straddle position. The second player walks between number 1's legs, grasping number 1 at the thighs. In this position they travel to the turning point and return. The first player is walking on his hands. His legs (handles of the wheelbarrow) are carried by the player. They cross the starting line. The second player becomes the wheelbarrow, and the third player becomes the pusher. Continue until each player has had his turn. The team finishing first wins.

7. Horse and Rider

Formation

Same as for Duck Waddle.

Description

The first player is the horse. The second is the rider. The rider mounts the hips of the horse and places his hands on the shoulders of the horse. The horse travels to the

turning point and returns. They cross the starting line and rider becomes the horse, and third player becomes the rider. Continue until each player has had his turn. The team finishing first, wins.

Conditioning Exercises

Three types of conditioning drills are given here: A general conditioning drill, a grass drill, and ranger activities. They can be adapted to indoor or outdoor use in limited space and require no equipment. Strength and endurance are developed quickly through regular use of these drills, especially if there is a steady increase in the number of times each exercise is performed.

General Conditioning Drill

To be most effective and to reach the objectives for which the drill is designed it is imperative:

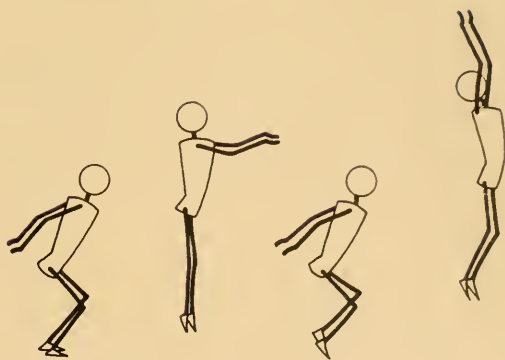
1. To do the exercises in good form, i. e., exactly as described, and with energy in each movement.
2. To increase the number of times each exercise is performed, as the capacities of the individuals develop.
3. To maintain sustained effort without rest or pause between exercises. Each exercise must be thoroughly learned before going on to the next one. When the drill is memorized, then all the exercises should be done without stopping.
4. To master unit number one before going on to unit number two, and likewise units one and two, before going on to unit number three.
5. Finally, to perform each exercise the maximum number of times indicated.

Formation:

Open order. From closed order in a column of 3's or 4's. On the command, 1. Extend to the left, 2. MARCH, all raise arms sideward and run to the left until there are at least 12 inches between finger tips. The boys on the right flank stand fast. "COVER" (i. e., straighten lines from front to back) and lower arms to sides. This is one of many ways of opening order. See War Department *Basic Field Manual, FM 21-20. Physical Training*, March 6, 1941, p. 24 for another method.

Unit One

Exercise 1.



Starting position: Stand with feet about a foot apart, knees slightly bent, arms raised backward.

Count 1—Swing arms forward and jump upward.

Count 2—Swing arms backward and jump upward.

Count 3—Swing arms forward, upward and jump upward about 1 foot.

Count 4—Swing arms backward and jump upward. 5 to 12 times.

Exercise 2.



Starting position: Position of attention.

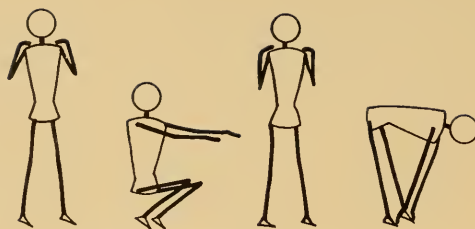
Count 1—Squat rest. (a squat rest is a deep-knee bend with hands on floor in front of feet).

Count 2—Extend legs backward to front leaning rest. (the body is straight from shoulders to feet, weight supported on hands and toes).

Count 3—Return to squat rest.

Count 4—Return to attention. 12 to 25 times.

Exercise 3.



Starting position: Feet slightly apart, and elbows bent with fists at shoulders.

Count 1—Bend knees deeply and thrust arms forward, keeping body erect.

Count 2—Return to starting position.

Count 3—Bend trunk forward, and thrust arms downward, touching toes, keeping knees straight.

Count 4—Return to starting position. 10 to 20 times.

Exercise 4.



Starting position: Lie on back, arms stretched sideways.

Count 1—Raise legs slowly swinging them over

head and touching toes to ground above head.

Count 2—Lower legs slowly to starting position. The count is slow. 10 to 20 times.

Unit Two

Exercise 5.



Starting position: Stand erect, arms in running position.

Exercise: Run in place. Begin slowly and run about 10 steps (count only step of left foot).

Speed up for another 10 steps, raising knees hip high. Then run 10 to 25 steps at full speed, raising knees hard. Then run slowly 10 steps.

Exercise 6.



Starting position: Feet about 30 inches apart, arms extended overhead, hands clasped.

Count 1—Bend sideward left.

Counts 2 and 3—Continue bend to the left trying to go deeper on each count.

Count 4—Return to starting position. Same right. 10 to 20 times.

Exercise 7.

Starting position: Lie on back, arms extended overhead. Keep feet flat on the ground, legs straight.

Count 1—Sit up, and at the same time, draw knees to chest, leaning forward and swinging arms forward to a "rowing position."

Count 2—Return to starting position. 10 to 20 times.

Exercise 8.

Starting position: Position of attention.

Count 1—Squat rest (see exercise number 2).

Count 2—Front leaning rest (see exercise number 2).

Count 3—Bend elbows, touching chest to floor.

Count 4—Straighten elbows.

Counts 5 and 6—Repeat counts 3 and 4.

Count 7—Return to squat rest.

Count 8—Return to position of attention. 5 to 12 times.

Exercise 10.



Starting position: Left foot about 8 inches forward, hands clasped on top of head.

Count 1—Sit on the right heel.

Count 2—Bounce from this position and spring upward, knees straight. Change position of feet.

Count 3—Drop to squat on left heel.

Count 4—Spring and change position of feet. Add two a week until able to do 25.

Unit Three

Exercise 9.



Exercise 11.



Starting position: Lie on back, arms sideward, palms down, legs raised straight up with feet together.

Count 1—Swing legs vigorously to left touching ground on the left side.

Count 2—Same to the right. Begin slowly and increase the tempo gradually.

Exercise 12.



Starting position: Front leaning rest. See exercise number 2.

Count 1—Bend elbows and touch chest to floor.

Count 2—Straighten elbows. Repeat 8 to 20 times.

NOTE: Many will be unable to continue this exercise and keep the rhythm. These individuals may change to the "knee-rest position," i. e., hand and knees on floor, feet raised from it. If they are still unable to continue, they may relax the whole body and simply push up the shoulders. But they should NOT STOP TRYING.

Suggestions:

1. The numbers given after each exercise indicate the minimum and maximum number of times the exercises are to be performed, e. g., in exercise

2 the dosage indicated is 12 to 25. This means to begin with 12 times and gradually increase to 25 as the condition of the boys improves.

2. "To master unit one," means that the class is able to do better than the minimum set for each exercise before unit two is begun. Continue to increase the number of times in unit one as unit two is added. The same procedure is to be followed in adding unit three.

3. To overcome stopping between exercises the teacher must anticipate the next one, by saying just before the last execution of any exercise, "Ready for the second exercise."

4. In teaching the exercises:

(a) Demonstrate each before asking the class to do it. Correct demonstration is more valuable than a lengthy explanation.

(b) Give commands clearly and concisely. The tone of voice can help materially in stimulating the class to action.

(c) Keep the class working together by counting. Exercises may vary in number of counts. "1-2-3-4, 1-2-3-4," or "1-2, 1-2," may be used. Directions may be indicated by "up"—"down"—"left"—"right." Clapping the hands, beating time with the heel on the floor, or using the tom-tom or drum may be substituted for the voice.

(d) The teacher should not perform with the class at all times because he must be free to observe and correct faults. He should observe from front, side, and rear, commenting on the good performance, correcting the faulty ones, urging all to better performance.

(e) The boys should be encouraged to improve their performance by individual practice at home.

Grass Drill

The grass drill was originally used as part of the training for football squads to develop agility and endurance. The exercises are given in varied order, at the will of the instructor, and upon his command.

Formation: Open order. See description under conditioning drill.

Front—Up—Back

At the command "Front," the boys fall to the ground quickly, face down, breaking the fall with the hands. On the command, "Up," they leap to their feet and run vigorously in place. On the command, "Back," they bend forward and fall back, breaking the fall by rolling to a seat, then lie on their backs. On the command, "Front," they change to a position of face down, hands toward the front of the class. If the command, "Back," is given when boys are face down, they squat through (i. e., support the weight on the hands and extend the legs through the arms and lie down). Vary the order of the commands so that the boys cannot anticipate the next movement. 2 to 5 minutes.

In order to round out the grass drill, additional exercises to develop the shoulders and abdominal muscles should be inserted at the will of the instructor. Some of these exercises are:

Sit up: Lie on back, hands behind the head, raise the trunk and twist so that the left elbow touches the right knee. Return to lying position. Repeat with right elbow touching left knee. Continue.

Push up: Lie face downward, place hands on floor, shoulder width apart. Push up, keeping back straight so that weight is supported on hands and feet, arms straight, return to starting position. Continue.

Bicycling: Lie on back, raise legs and hips high. Imitate movements of riding a bicycle.

Deep-knee bending: Place hands on hips, bend knees deeply, back straight, until sitting on heels. Return to standing position. Continue.

Legs overhead: Lie on back, raise legs upward and touch toes to floor behind the head. Return to position. Keep legs straight. Continue.

Legs right and left: Lie on back, arms sideward, palms down, legs raised straight up. Swing legs vigorously sideward right until legs practically touch the ground. Same to left.

Front leaning rest: Place hands on the floor in front of feet, bending knees. Thrust feet backward to front leaning rest position. Return in reverse order. Do slowly at first, and gradually speed up.

These exercises are of such value that they may be practiced individually or in groups.

Suggestions.—The grass drill does not demand the same precise performance which is required in the conditioning drill. It may be modified for use indoors. The teacher must change the exercise or stop the drill before the class is unduly fatigued. Care must be used in adding exercises to the grass drill. Select only a few, in order not to make the drill too strenuous.

Response Drills

Response drills are valuable in the practice of skills which are needed in combat. They develop an ability to respond accurately and quickly to commands.

Go—Stop

At the command, "Go," the boys spring forward as a football team does in running signals. At the command, "Stop," they drop to the lineman's crouch. At "Go," they again sprint forward. This may be varied by the command, "Drop," (i. e., fall to the ground face down as in grass drill). At the com-



mand, "Right," they turn and spring to the right at an angle of about 45 degrees. If the command is "Left," they run to the left at a 45 degree angle. "Go," in each case means sprint straight forward. "To the rear," means reverse the direction. Whistle signals may be substituted. 2-5 minutes.

Zigzag Run and Drop

Upon the signal to go, the boys run fast at an angle of about 45 degrees to the right, and at the whistle signal, zigzag to the left at about 45 degrees, and on the whistle signal, drop to the ground. At the next whistle, spring to the feet and repeat the zigzag run and drop. Continue until signal is given to halt. 2-5 minutes.

This is similar to the manner in which men advance under fire.

Suggestions

1. Teach the boys how to "drop," first by breaking the fall with the hands and then without the use of the hands.
2. The boys must know exactly what is expected of them.
3. The time between signals must be varied to develop the quick reactions desired.

Ranger Exercises

Ranger exercises are so named because they are patterned after movements which ranger troops use.

Formation:

Single circle, if less than 30 boys.
Double circle, if between 30 and 60 boys.
Each boy 8 feet behind the one in front.

Procedure:

The instructor directs the boys to walk forward at a slow relaxed pace, 80 to 90 short steps per minute, keeping the circle forma-

tion. The class does not walk in step. The instructor, standing in the center of the circle, calls the name of an exercise, demonstrates it, and then commands, "Start." Immediately, each boy starts to perform the exercise, continuing to move around the circle. After performing the exercise for about 10 to 30 seconds, the instructor commands, "Relax," upon which all resume the original slow walk. After 5 to 15 seconds, the instructor names and demonstrates a new exercise, and at the signal, "Start," the class performs it. The time between exercises should vary with the nature of the exercise, and the condition of the boys.

Description:

1. *All fours.* Face down, on hands and feet. Walk forward.
2. *Bear walk.* Face down on hands and feet, travel forward by moving the right arm and right leg simultaneously, and then the left arm and left leg simultaneously.
3. *Leap frog.* Count off by twos. At whistle, the evens leap over the odd numbers. At the next whistle, the odds leap over the even numbers. Repeat continuously raising the backs higher and higher.
4. *Duck waddle.* Assume the full knees-bent position, hands on hips. Retain this position and waddle forward.
5. *Squat jump.* Assume the full knees-bent position. Retain this position and travel forward by short bouncing jumps.
6. *Indian walk.* Bend knees slightly, bend trunk forward, arms hanging down until back of hands touch ground. Retain this position and walk forward.
7. *Crouch run.* Lean forward at the waist until the trunk is parallel with the ground. Retain this position and run forward at a jogging pace.
8. *Straddle run.* Run forward, leaping obliquely to the right as the right foot advances, leaping obliquely to the left as the left foot advances.
9. *Knee-raise run.* Run forward, raising the knees as high as possible on each step. Swing arms vigorously.

10. *Hop.* Travel forward by hopping on the left foot. Take long steps. Change to right foot and repeat.

Carries

Before starting these exercises, have the group count off in twos, then place them in pairs (side by side). In all cases the "Ones" carry the "Twos" at the signal "Start." At the signal "Change," the men reverse positions. "Twos" carry "Ones," and continue the same exercise. On the signal "Relax," both resume their original positions and walk forward.

11. *Fireman's carry.* "One" places his left arm between the legs of "Two," so that the crotch of "Two" is at shoulder of "One." "Two" leans forward until he is lying across "One's" shoulders. "One" straightens up, lifting "Two" off the ground. "One," using the hand of the arm through "Two's" crotch, grasps the wrist of "Two's" arm which is hanging over his shoulder. Retaining this position, "One" runs forward.
12. *Cross carry.* "One" standing in front of "Two," leans forward. "Two" bends forward until he is lying across the middle of "One's" back. "One" then places one arm around "Two's" shoulders, and straightens up, lifting "Two" from ground. Retaining this position, "One" runs forward.
13. *Single shoulder carry.* "One" standing in front of and facing "Two" assumes a semi-squatting position. "Two" leans forward until he is lying across "One's" left shoulder. "One" clasps his arms around "Two's" legs and straightens up, lifting "Two" from the ground. Retaining this position, "One" runs forward.
14. *Arm carry.* "One" standing beside "Two," bends his knees and lifts up "Two," by placing one arm below his thighs, and the other around the small of his back, "Two" places his near arm around "One's" shoulders and clasps his other hand. Retaining this position, "One" runs forward.

Suggestions:

1. Use variety in choice of exercises.
2. Use a maximum of six exercises in a 10-minute period.
3. Choose the easy exercises first.

Apparatus

Exercise on apparatus is especially valuable in developing strength, agility, and endurance. Only a few of the many exercises which contribute to these objectives on some types of apparatus have been selected. Extreme care should be exercised in the construction, maintenance, and use of apparatus to prevent accidents.

Formation

The class arrangement is dependent upon the size of the class, of the gymnasium, and upon the apparatus available. Divide the class into groups according to facilities. Keep the group small to provide maximum participation. Arrange the class and apparatus so that: (a) Those waiting their turns may see the performer; (b) so that there is safe and easy access to and from the apparatus.

Apparatus and Activities

Climbing ropes and poles

(a) Climbing

1. Ordinary climb (hand over hand).
2. Climb without aid of feet (legs dangling).
3. Climb without aid of feet (knee kick in each step).
4. Swing on two ropes, vaulting for height. (Pendulum vault)
5. Swing on one rope, vaulting over obstacles.

(b) Oblique and horizontal ropes or poles

1. Travel, using hands and legs.
2. Travel, using hands only.

NOTE: It is important that boys learn to descend the rope hand under hand. Caution them to save enough energy to climb down. In developing climbing ability, it may first be necessary to develop leg and arm strength on other pieces of apparatus.

Parallel bars (low or high)

From end of bars:

1. Dip while supported on hands.
2. Dip while swinging.
3. Travel forward on hands in support.
4. Side vault left (right).
5. Rear vault left (right).
6. Swing with upper arm hang.

From side of bars:

7. Side vault left (right) over both bars.
8. Front vault over both bars.
9. Elephant vault. Cover both bars with a gymnasium mat. From a run, vault over



elephant. A spring board may be used to increase height.

Horizontal bar (chinning bar)

High bar (beyond reach)

1. Chin from a hang. Any grip.
2. Hang. Raise knees.
3. Hang. Raise legs.
4. Hang. Swing feet forward and upward over the bar to a support.

Low bar (shoulder high)

1. Side vault.
2. Front vault.
3. Bar vault for height.

Horse and buck

1. Straddle vault.
2. Side vault, left (right).
3. Front vault, left (right).
4. Raise apparatus and vault for height.
5. Cover the horse or buck with a gymnasium mat and use as an obstacle.

Stall bars

1. From a hang, facing bars—chinning.
2. From a hang, back to bars—knee raising
leg raising
3. Sitting on the floor or on a bench, feet fixed between rungs, trunk lowering and raising. (sit-ups).

Flying rings

1. Hang and chin.
2. Swing and pull up at end of swings.
3. Hang or swing—raise knees.
4. Hang or swing—raise legs.

Horizontal ladders

Grip rounds or beams.

1. Chin (pull ups).
2. Travel forward.
3. Travel sideward.
4. Hang—raise knees.
5. Hang—raise legs.

Suggestions

1. Mats should be used as a safety precaution.
2. Boys should be taught correct grips.
3. Assistance should be provided during practice periods.
4. The height of the apparatus is dependent upon the height of the boys and the type of activity.
5. Exercise may be made more difficult by raising the apparatus; by increasing the distance between the take-off and the apparatus; by adding obstacles (such as placing a medicine ball on the end of the horse for vaulting).

Tumbling

The tumbling here given aims to teach boys how to jump and fall without being hurt; to give them sufficient practice so that they will have a sense of "whereaboutness," and an ability to carry one another without injury. Tumbling develops the ability to control the body in flight.

Care should be taken to follow proper safety measures such as adequate rests, sufficient assistance, definite instruction during the training period, and the use of mats when the events are conducted on floors or other hard surfaces.

Formation

Divide the class into small squads to increase participation. Place each squad either sitting or standing along the side of the mat.

1. Forward Roll

From a stand, bend forward, bend knees, and place hands on mat. Duck head between legs, roll forward on back of neck and shoulders, grasping knees. Come to a stand.





2. Shoulder Roll

Turn slightly to the right, place hands on the mat to left. Roll forward on the left shoulder,

pulling the left arm in to the chest, rolling on the back and up to the feet.



3. Backward Roll

From a stand, lean forward, fall backward to a seat, roll backward, placing hands on the mat

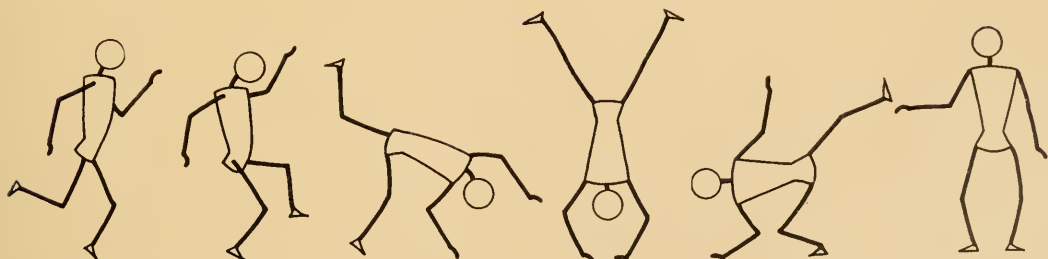
over the shoulders, and at the same time drawing the knees to the chest. Push off with the hands, and roll to a stand.



4. Dive Roll

Same as forward roll, preceded by a short dive, from a stand. Take off from both feet, stretch-

ing arms forward, dive and roll. Do the same from a running start.



5. Cartwheel

From a run, make a quarter turn left, placing right foot sideward, right arm upward, throw the weight on the right foot, placing the right hand on the mat. Raise the left leg up, at the

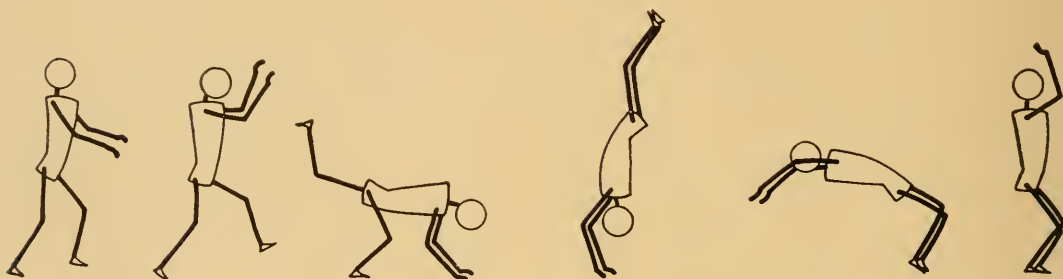
same time placing the left hand on the mat, arms and legs spread. Bring the left foot to the mat as the right hand is raised. Follow through to a stand.



6. Head Spring

From a run, shift weight onto right foot, raise left leg forward and arms overhead. Swing the left foot down, bend at the waist, swing hands

to the mat, placing head on mat between hands. Follow through, swinging right leg overhead, push up with the hands, arch the back, snapping to a stand.



7. Hand Spring

Same as head spring except that the head does not touch the mat.

8. Supplementary Activities

- (a) Jump from heights.

Use any available apparatus or platform.

Begin at a height of about 4 feet; increase the height gradually as skill improves.

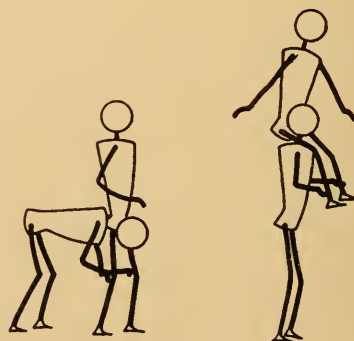
Break the fall by landing on the balls of the feet.

- (b) Jump from heights and roll to a stand, using a forward roll.

- (c) Jump from heights and roll to a stand, using the shoulder roll.

- (d) Dive over obstacle and roll to a stand. See dive and roll description.

- (e) Companion stunts. (Two high.)



- (1) Sitting on shoulders.

The top man spreads his legs and stands with his back to the bottom man. The bottom man places his head between the legs of the top man, who springs upward as the bottom man rises to a stand.

(2) Standing on shoulders.



Men face each other with hands joined and arms crossed. The bottom man places his left leg forward and bends his knees. The top man places his left foot on the left thigh of the bottom man, and steps up, placing the

right foot on the right shoulder of the bottom man and the left foot on the left shoulder. The bottom man releases hands and places his hands behind the knees of the top man.

(3) Fall and roll.



From two-high (sitting or standing on shoulders) at a signal both men lean forward, disengage, and roll forward to a stand.

Suggestions

1. Use several thicknesses of mats for safety.
2. Place mats end to end to increase distance and difficulty as class progresses.
3. Use an assistant on the difficult exercises such as the head spring and hand spring.



Grenade Throwing

The grenade throw is a combination of a shot-put and a catcher's peg. Before the grenade is thrown the safety pin must be pulled out with a pulling twisting motion. The pulling of the safety pin arms the grenade, but it will not fire until the thrower releases the lever.

The throw is executed by bringing the right arm up until the elbow is on a line with the shoulder. The palm of the hand is up near or touching the shoulder. At the same time, the left arm is extended, palm down, and pointing toward the target. The weight is on the right foot with the eyes sighting along the left arm. The right arm is then thrown upwards, as in shot-putting, but straightens out and follows through as in a catcher's throw.¹

There should be no muscle strain or pull at any point. The accompanying illustrations show the successive steps in throwing a grenade.

Rocks of approximately 20 ounces in weight can be used for practice in grenade throwing. Rocks or other objects may be wrapped with friction tape if a more realistically shaped article is desired.

Combative Activities

The activities listed under this title consist of individual and group contests of a rough and strenuous nature. They are valuable in developing the ability to react instantly with a maximum of energy for the purpose of overcoming an opponent.

Objectives

1. To develop aggressiveness in personal combat.
2. To develop initiative in personal combat.
3. To develop resourcefulness in personal combat.

Activities

Hand to hand.

In hand to hand combat in war, victory if

¹ How to Throw a Grenade. *Scholastic Coach*, 12:26 (September 1942).

achieved, usually comes in the first few seconds. Defeats suffered in early practice will be compensated for by habits of aggressiveness and by the quick and adaptive thinking which will grow from such practices. The activities described below are developmental and not the ones of actual warfare.

Formation

Arrange the class in pairs, according to size.

1. Hand Pull

Contestants grasp hands (one or both) and each attempts to pull the opponent over to his own position. In grasping hands, each individual should grasp the wrist of the opponent so that there is a double grasp with heels of hands in contact and with each hand grasping the other's wrist. This can be varied by hopping.

2. Neck Pull

Grasp the back of opponent's neck with one hand; for example, each contestant grasps the back of opponent's neck with right hand. In this case the right foot would be forward. Attempt to pull opponent out of position.

3. Rooster Fight

Hop on left foot with arms folded across the chest. Use the right shoulder and right side of chest to butt opponent. The object is to make the opponent lose his balance and fall, or to unfold his arms or to touch his free foot to the ground.

4. Hand Wrestling

Opponents grasp right (or left) hands. Right foot is forward, and each attempts by pulling, pushing, by a sideward movement or other maneuvering to force opponent to move one or both feet from original position. Change hands after each bout.

5. Mounted Wrestling

Men fight in pairs. The "rider" sits astride the neck of the "horse" with his lower legs under the "horse's" arms and his feet clasped behind the "horse's" back. Two pairs of such horses and riders then wrestle, the object being to unseat the rider or to cause the rider to touch the ground anyway. If both pairs fall at the same time, the rider touching the ground first is the loser.

6. Indian Wrestling

Contestants lie on the ground, side by side, with heads in opposite directions. Link right elbows. Upon signal of instructor or by mutual agreement, raise right leg far enough to engage the heel of the opponent. In order to time the contest, individuals usually raise the leg three times rhythmically and the third time engage opponent's heel, attempting to roll him over backwards. After each three bouts, change legs.

Boxing²

The fundamentals of boxing are very valuable, especially the foot work and thrusts. Competitive boxing should not be encouraged, except under expert supervision and control. The following skills are of value and should be practiced.

1. On guard
2. Footwork
 - Advance and retreat
 - Side stepping
3. Thrusts
 - Straight right or left
4. Hooks
 - Right or left



Wrestling³

Wrestling is one of the most valuable forms of combative activity. It is particularly valuable in the present emergency in teaching

² See any standard boxing guide for detailed descriptions.

³ See any standard wrestling guide for detailed description of wrestling holds.

boys how to secure bodily advantage over an adversary quickly. In all forms of wrestling, both during the training period and in matches, the emphasis should be upon overcoming one's opponent instantly. Competitive wrestling should not be encouraged except under expert supervision. Some of the wrestling positions lend themselves to hand to hand combat.

1. Pulled from locked position

Contestants assume the standing position and each grasps the back of opponent's neck with the left hand and opponent's left elbow with right hand. In this position, attempt to pull opponent across a line.

2. Tackling opponent

A dives forward suddenly, grabs B with both arms around the knees and draws his knees toward him, pushes with the shoulders and throws B backward to the ground.

3. Head and hip throw

A grabs B's right wrist with his left hand and pulls him forward, stepping forward and to the left with his right foot. A then places right arm around B's head, turning his back to B and pulling with left hand and right arm, throws B forward over his hip.

To block this, B pushes A's right hip as he starts to turn, keeping A away from him.

4. Arm Drag

A grasps B's right wrist with left hand and quickly seizes B's upper arm with right hand. A moves quickly to left by putting out his left leg and pulls forward and down upon B's arm. A drops quickly to B's right knee, still pulling B's arm down by A's right side. This will put B down to his chest temporarily. A then climbs upon B's back by pivoting on right knee and reaching over with left arm.

5. Chest to Chest

Opponents standing, chests together, left

arm over opponent's right shoulder, right arm under opponent's left arm, grasping hands behind the back. Attempt to lift opponent from the ground and/or throw him to the ground. Holds may be changed after the bout has started.

Suggestions

Demonstrate each activity.

Encourage boys to secure advantage of opponent instantly.

Train boys to exert minimum effort.

Train boys to keep cool headed because emotional and mental control may be the difference between success and failure in personal combat.

Guard against conduct which might result in injury.

Use hand to hand combat activities two or three times a week. Begin with less strenuous and progress to the more difficult ones.

Use the dual activities in team competition wherever possible.

Sports and Games

Sports and games contribute to the development of endurance and skill and are of value in developing the combative spirit and the *will to win*. In order to derive the maximum benefits from the game program there must be more participation by more people, i. e., more games, longer periods, and more boys in the games.

Objectives

1. To develop cooperation (subordination of the individual for the good of the group).
2. To develop leadership and followership.
3. To develop aggressiveness.
4. To develop initiative.

Activities

Group Games

Many group games can be made more vigorous and rugged to meet the objectives of this program.

1. Broncho Tag. (Developed from Three Deep)

The players are scattered about in pairs. The boy standing behind wraps his arms around the waist of the one in front. One chaser and one runner are selected. The chaser attempts to tag the runner. The runner may escape by clasping the waist of the rear boy of any pair. If he succeeds, the front boy in the pair becomes the runner and the chaser pursues him. If the chaser tags the runner before he escapes, the runner becomes the chaser and the chaser becomes the runner. To prevent a runner from escaping the pairs twist and turn. The front boy is permitted to ward off the runner by using his hands. The game may be intensified by increasing the number of chasers and runners.

2. Circle Bombing. (Developed from Circle Dodge Ball)

Divide the class into two teams. Team A forms a circle around team B. The object is for Team A to hit, with a volley ball, soccer ball, or basket ball, as many players of Team B as is possible in a given time. Team B may run, jump, and dodge to avoid being hit, but must stay within the circle. At the end of a given time the teams change places. A point is scored each time a man is hit. This game should be played with 2 or more balls and 15 to 20 players on a team. The game may be intensified by increasing the number of balls.

3. Bull Dozing. (Developed from King of the Mountain)

Teams A and B form inside a plainly marked circle. The size of the circle depends on the number of players. Each team should be so marked or clothed as to be readily identified from the opponents. The object is to eject an opponent from the ring by pushing, pulling, throwing, or charging. When any part of a player touches the ground on or outside the circle, he is out of the game. At the

end of a given period of time, the team with the most players remaining in the circle is the winner. To intensify the game call time when most of the boys have been eliminated.

4. Pull Away

Establish a goal line at each end of the playing space. Team A lines up along one goal line and Team B lines up across the center of the field facing Team A. At a signal, the players of Team A try to cross safely to the opposite goal. Players of Team B attempt to tag as many players of Team A as possible. When a player is tagged, he becomes a member of the opponent's team. The players who reach the opposite goal attempt to return to their original goal when another signal is given. The games continue until all the players are caught. Intensify the game by designating the method of tagging or by naming the part of the body to be touched in tagging.

Suggestions

1. The teacher can adapt additional group games to make them more vigorous.
2. Rugged games such as shinny can be used.

Individual Sports

Track and Field

The variety of events in track and field provide an opportunity for boys to participate in dashes which develop speed; distance races which develop endurance; and field events which improve skill and agility.

For events and rules see the official track and field publications. Abridged rules are found in War Department *Technical Manual, TM 21-220, Sports and Games*, May 13, 1942.

Care should be exercised in starting the training program so that the boy does not overdo. The training program should provide for gradual development until the maximum performance is attained. The *Physical Training Manual*. U. S. Naval Academy, published by the U. S. Naval Institute, Annapolis,



Md., gives techniques for performing the various events.

Skating (Ice and Roller), Skiing, Snow Shoeing

In communities where it is possible to participate in these activities they should be included in the program. In order to develop physical fitness these activities must be engaged in repeatedly and with maximum effort.

Rope Skipping

Rope skipping, in various forms, is used as a conditioner for many sports and games, especially boxing and wrestling. It may be done individually, in pairs, or by groups. It develops agility and coordination, and when practiced beyond the onset of fatigue it develops endurance.

Hiking

Hiking is brisk walking for long distances. Three to five miles are recommended for beginners. Rest periods should be few and brief.

Camping

Camping provides many valuable experiences. It teaches one to live successfully out of doors. It provides the opportunity to learn how to live off the land. It gives an opportunity for urban boys to do things which are not ordinarily possible in a city, such as hiking, fishing, boating, trailing, and cooking. Camping in groups teaches boys to live successfully together. Camping must be properly supervised and sanitary provisions maintained.

Cycling

Cycling is valuable in a conditioning program when it is done rapidly over long distances. It develops endurance and is especially beneficial in strengthening the muscles of the legs.

Other individual sports such as rowing and weight lifting are valuable in developing fitness.

Team Games

Some excellent team games which have definite recreational value and spectator interest have been omitted from this list because they do not contribute sufficiently to the major objectives set up for this program. If time permits such activities may be included.

Basketball

Basketball is played by 2 teams of 5 players each. The ball is passed or dribbled from one player to another. The purpose of the game is for one team to get the ball into its own basket and at the same time to prevent the other team from gaining possession of it and scoring. The game may be played either indoors or outdoors.

Court.	Played on any size court. It is recommended that a court 50 feet wide by 84 feet long be used.
Players.	5 players on each team.
Length of game.	8 minutes per quarter; 2 minutes between quarters; 10 minutes between halves.
Equipment.	2 goals fastened to backboards and a basketball.
Rules.	See War Department <i>Technical Manual TM 21-220. Sports and Games</i> , May 13, 1942, p. 34. See National Federation of High School Athletic Associations. <i>Rules</i> .

Field Hockey

Field hockey is played by 2 teams of 11 players each. The ball is propelled toward the goal by a curved stick. The purpose of the game is to get the ball through the opponent's goal and at the same time prevent the opponents from doing likewise.

Field.	50 to 60 yards wide by 90 to 100 yards long.
Players.	11 players on each team.
Length of game.	15 to 30 minute halves; 10 minutes between halves.
Equipment.	Field hockey sticks and ball, and goals at each end of the field, with the cross bar 7 feet high supported by uprights 12 feet apart. It is recommended that shin guards be used.
Rules.	See <i>Official Field Hockey Guide</i> .

Football

Football is played by 2 teams of 11 members each. The object of the game is to advance the ball over the opponent's goal by running, passing, or kicking, and preventing the opponents from advancing in like manner over your own goal.

Field.	160 feet wide by 360 feet long.
Players.	11 players on each team.
Length of game.	12-minute quarters; 2 minutes between quarters; 15 minutes between halves.
Equipment.	A goal at each end of field 10 feet high, 18 feet 6 inches between uprights which must extend 10 feet above the crossbar, and a football. The players should be protected adequately by means of head gear, shoulder and hip pads, and pants. Football shoes are recommended.
Rules.	See rules of National Federation of State High School Athletic Associations and also Rules of National Collegiate Athletic Association.

Six-man football

This is a game developed from football for use in small high schools. Special rules have been developed for this game. See rules of National Federation of State High School Athletic Associations.

Touch football

Touch football is similar in most ways to regulation football. The ball carrier is stopped by touching with both hands rather than tackling. Blocking as found in regular football is eliminated. Forward passing is the principal offensive weapon, with all players eligible to receive the pass.

Field.	Regulation football field is preferable, but a smaller one may be used.
Players.	11 players on each team. By mutual agreement more or less players may be used on a team.
Length of game.	10-minute quarters; 2 minutes between quarters; 10 minutes between halves.

Equipment.	A football. Football goal posts may or may not be used.
Rules.	Rules vary with different localities. See War Department <i>Technical Manual</i> , TM 21-220. <i>Sports and Games</i> , May 13, 1942.

Soccer

In soccer a team of 11 men seeks to advance a round inflated ball toward and through its opponent's goal posts and under the crossbar of the goal by dribbling, kicking, and striking or pushing it with any part of the body except the hands and arms.

Field.	55 to 75 yards wide by 100 to 120 yards long.
Players.	11 players on each team.
Length of game.	15-minute quarters; 1 minute between quarters; 10 minutes between halves.
Equipment.	A goal at each end of field 8 feet high and 24 feet between uprights, and a soccer ball.
Rules.	See War Department <i>Technical Manual</i> , TM 21-220, <i>Sports and Games</i> , May 13, 1942, p. 98. See also official Soccer Guide.



Speed Ball

Speed ball is a game offering vigorous and varied action with plenty of scoring opportunities. It is easy to learn and provides spontaneous fun. Little equipment is needed—a ball and old clothes will do. Speed ball combines the kicking, trapping, and intercepting elements of soccer with the passing game of basketball, and the punting, drop kicking, and scoring pass of football. The teams of 11 men each play the game under official rules, but any number of players may successfully constitute a team. An inflated leather ball, usually a soccer ball or small basketball is used. The playing field contains football goal posts at each end. The game starts with a football kick-off, the receiving team then advancing the ball toward the opposite goal by passing, kicking, or bouncing it off the body. Running with

the ball is not allowed so that there is no tackling or interference. When the ball touches the ground, it cannot be picked up with the hands or caught on the bounce, but must be played as in soccer until it is raised into the air directly from a kick; then the hands are again eligible for use. When the ball goes out of bounds over the end line without a score, it is given to a player of the opposing team who may either pass or kick it onto the field. When two opposing players are contesting the possession of a held ball, the official tosses the ball up between them as in basketball. Points are scored either by kicking the ball under the crossbar of the goal posts, drop kicking the ball over the crossbar, completing a forward pass into the end zone for a touchdown, or kicking the ball from within the end zone for a touchdown, or kicking the ball from within the end zone over the end line.

Field.	Can be played on any football or soccer field.
Players.	11 players on each team.
Length of game.	10-minute quarters; 2 minutes between quarters; 15 minutes between halves.
Equipment.	No metal cleats. Football or soccer

shoes are recommended. No special clothing is needed. The ball is usually a soccer or small basketball. See War Department *Technical Manual*, TM 21-220, *Sports and Games*. May 13, 1942, p. 123.

Rules.

Volley Ball

In the game of volley ball an inflated leather ball somewhat smaller and lighter than a basketball is struck with the hands over a net stretched across a rectangular court, the players consisting of two teams of six men each stationed on opposite sides of the net, the object being to hit the ball over the net so that it falls to the floor before the opposition can return it.

Court.	30 feet wide by 60 feet long.
Players.	Two teams of 6 players each. By mutual agreement this number may be increased or decreased.
Length of game.	A game is won when either team scores a 2-point lead with 15 or more points.
Equipment.	A net 8 feet high across the center of the court and a volley ball.
Rules.	See War Department <i>Technical Manual</i> , TM 21-220, <i>Sports and Games</i> . May 13, 1942, p. 171. See also Official Volley Ball Guide.

CHAPTER V

Activities for Girls

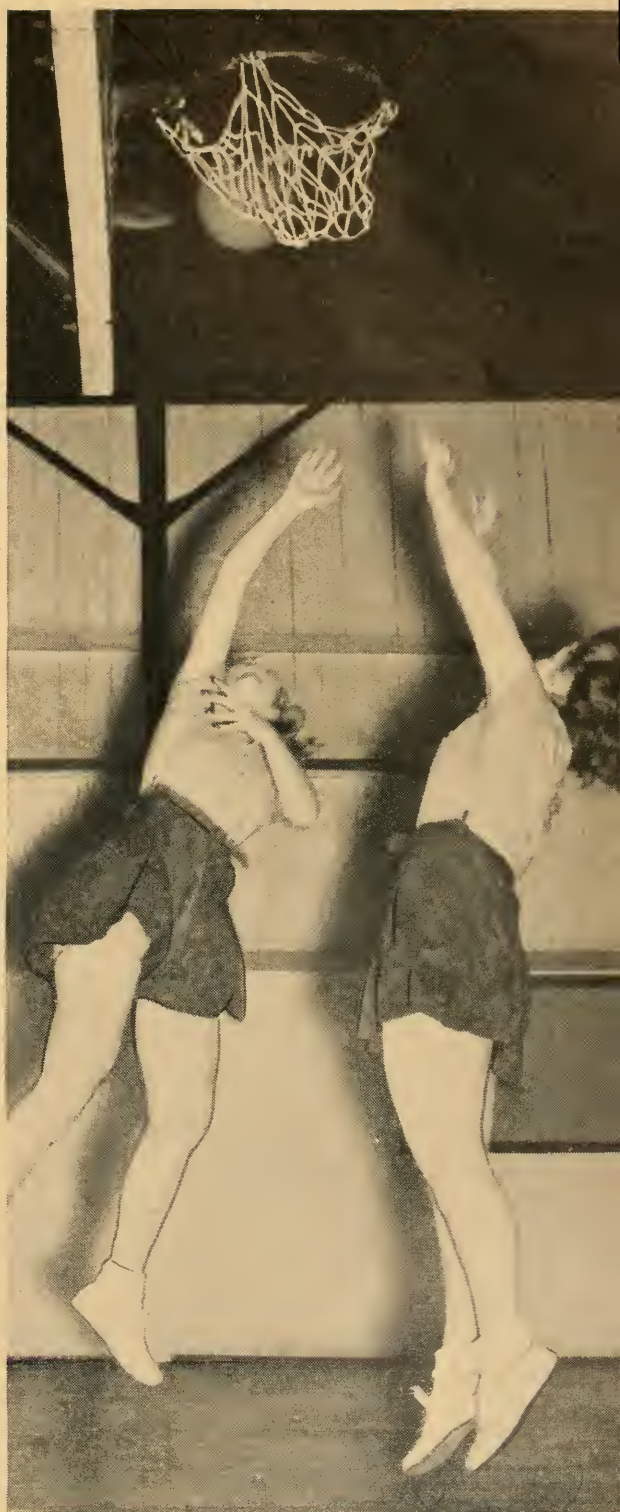
PHYSICAL FITNESS is as important for girls and women as for boys and men. Boys must be made ready to serve with the armed forces. Girls must be prepared to carry on work which is directly related to the winning of the war, even though not on the fighting front.

Many women are now at work in defense industry and farming and this number will materially increase in the future. Many are serving as nurses, medical social workers, and recreation leaders with the American Red Cross, with the USO, and other organizations. The recently organized service units, the WAACS and the WAVES have enlisted others. Many are busy on the home front. The care of children, the management of homes, civilian defense, and other types of volunteer service, are among women's responsibilities.

High-school girls must be ready to assume the responsibilities which the times place upon them. The educational program for girls must be changed to prepare them to meet these responsibilities just as the program for boys is being changed to meet their needs. Since the needs of girls are so different from the needs of boys, it follows naturally that the programs must be different.

The program here offered is a guide to teachers of physical education whose responsibility it is to carry on activities which contribute to the physical fitness of girls. The program recommends vigorous participation. It stresses activities which develop endurance, stamina, and skill.

The development of skill brings with it a sense of achievement. Achievement builds morale. The program for girls must give opportunity to achieve, to succeed, to increase morale. With large numbers of boys and



men leaving their homes and communities for military service, the responsibility for maintaining morale both in the home and in the community is, therefore, placed largely upon the shoulders of the girls and women of America. Education must prepare them to face this task.

Guiding Standards for the Girls' Program

1. All normal girls should participate in the program here outlined in preparation for war service.

2. Women should teach the girls' program.

3. Restrictions upon participation during the menstrual period should be determined by individual differences with conservatism the guide in the absence of final evidence.¹ Girls suffering from infections, including minor respiratory infections, should be excused temporarily from participation.

4. Endurance is developed only as the result of vigorous activity carried beyond the first onset of fatigue. Effort should be sustained, therefore, even though the girls are somewhat tired. It is imperative, however, that the teacher watch her students carefully so that they do not become overtired. Such signals as falling frequently, dropping objects, bumping into others, and awkward gait should warn the teacher that the individual should cease activity.

5. Intramural sports should be organized so that a maximum number of girls are included. The round-robin tournament provides the greatest amount of participation and should be used in preference to other forms. If interscholastic sports are organized, the intramural program should not be sacrificed. The desirable practice is to make the interscholastic program an outgrowth of the intramural program.

¹ Bell, Margaret. The doctor answers some practical questions on menstruation. Washington, D. C., National Section on Women's Athletics, American Association for Health, Physical Education, and Recreation, National Education Association, 1201 Sixteenth Street, NW.

6. The element of competition present in team play and dual sports should be used as a desirable, constructive force in character development.

7. Appropriate costume should be worn. Shorts, rompers, play suits, and the like are suitable for the gymnasium and playfield. Slacks or ski suits are suggested for outdoor participation in cold weather.

8. All resources of the community should be studied for their possible use in this program.

Aquatics

Women in the American Red Cross, in the USO, and in other branches of the service which may be sent overseas must be completely at home in the sea while fully clothed. They must be able to stay afloat for a long period of time and be ready to give assistance to others when necessary. These needs, therefore, should be emphasized at the present time rather than recreative aspects of swimming.

While it is true that many women will not be sent abroad, the program outlined below represents a minimum which is useful to all girls and women. In making them better able to handle themselves in the water and to help others in emergencies a service of inestimable value is rendered to the Nation.

Objectives

1. To stay afloat for a long period of time.
2. To swim long distances without exhaustion.
3. To swim under water.
4. To enter the water without submerging.
5. To be at home in the water fully clothed.
6. To render assistance to another person in the water.

Organization

1. The size of the class should be determined by the available space, the length of the class period, and the ability of the group. When able assistants are available to the instructor in charge, the class size may be increased without risking the safety of the participants.
2. Classes should be subdivided into small units.

3. The buddy system should be used. (Each girl is paired with another whose whereabouts she knows at all times).
4. An adequate check-in and check-out system should be established.

Activities

1. Staying Afloat

All girls should be taught to stay afloat by:

- (a) *Floating*. See American Red Cross. Swimming and diving. Philadelphia, P. Blakiston's Son and Co., 1938. p. 59.
- (b) *Sculling*. Ibid., p. 69.
- (c) *Treading water*. Ibid., p. 149.

2. Fundamental Strokes

The most valuable strokes in emergency situations are:

- (a) *Side stroke*: Valuable in lifesaving and swimming with equipment.
War Department. Basic Field Manual, FM 201-20, Physical Training. Washington, U. S. Government Printing Office, March 6, 1941. p. 102.
American Red Cross. Op. cit., p. 117.
- (b) *Breast stroke*: Useful in lifesaving.
War Department. Op. cit., p. 111.
American Red Cross. Op. cit., pp. 85, 104, 113.
- (c) *Back stroke*: Excellent for a tired swimmer, for swimming with equipment and for lifesaving.
War Department. Op. cit., p. 108.
American Red Cross. Op. cit., p. 100.
- (d) *Trudgen stroke*: Powerful and valuable for distance swimming.
War Department. Op. cit., p. 107.
American Red Cross. Op. cit., p. 127.

3. Endurance Swimming

This may be developed by the use of fundamental strokes over long distances.

American Red Cross. Op. cit., p. 133.

4. Swimming Under Water.

This is valuable in escaping hazards. Girls should be able to swim at least 20 feet under water.

5. Swimming Fully Clothed.

All of the above should be practiced fully clothed.

6. Entering the Water.

This term is used, rather than the term diving, to meet the needs of the war situation. While diving does develop skill and coordination, emphasis now should be placed upon jumping into the water with and without clothing.

- (a) Jump feet first.
- (b) Jump without submerging: Useful in keeping equipment dry.
- (c) Dive head first.

7. Lifesaving

See American Red Cross. Op. cit.
War Department. Op. cit., p. 119.

8. Suggestions to Teachers

- (a) The teacher of swimming must be familiar with lifesaving practices.
- (b) Safety precautions should be observed at all times.
- (c) The teaching practices suggested by the American Red Cross and the War Department should be observed.
- (d) For practice in swimming fully clothed, skirts, jackets, and shoes are advised. These should be white or fast-dye, and shed as little lint as possible. Clothing should be laundered before being used in a pool.

Gymnastics

Man struggles against gravity continually to maintain an erect posture. Good muscle tone contributes toward success in this struggle. Stretching, hanging, balancing, running, and jumping are some of the activities used to achieve the erect position. Efficiency in these skills may be reached by participation in sports as well as in gymnastics. The great value of gymnastics is that movement can be directed towards specific parts of the body. The direction and the intensity of the activity can be controlled.

Objectives

1. To develop endurance.
2. To develop strength of—
 - (a) The arms and shoulders.
 - (b) The back and abdominal wall.
 - (c) The legs and feet.
3. To assist in the maintenance of erect carriage.
4. To develop agility.
5. To develop specific skills applicable to the war situation.

Conditioning Activities

1. Running

Running develops endurance (Objective 1). Some forms given here also develop agility



and such specific skills as getting over or around obstacles (Objective 5).

(a) *Combination hiking and running*

This develops the ability to cover long distances in the shortest possible time. The starting distance should be 1 to 2 miles. The hike is a brisk walk interspersed with running (not jogging). At each practice the distance should be covered in less time and gradually increased to 5 miles in fast time. At first the period of hiking will be long and the running short. With increased practice the running time will be increased as the hiking decreases.

(b) *Cross country*

The course may be over hills, through woods, across brooks, over open fields or parks and golf courses. It is *not* running on city streets or highways. (Objectives 1, 2, 4, 5).

Suggestions for teachers

Girls should—

- (1) Warm up before the practice jaunt.
- (2) Wear slacks and light-weight sweaters on cool days.
- (3) Shorten the stride going uphill.
- (4) Breathe through mouth and nose.
- (5) Use an easy relaxed stride.
- (6) Walk a short distance in the fresh air after the run before using the shower.

(c) *Obstacle run* (Objectives 1, 2, 4, 5)

Obstacle running may be done either indoors or outdoors. Each school may set up its own course using any available obstacles. Indoors, the horse, parallel bars, box, benches, ropes, and ladders are usable. Outdoors, the obstacles may be hurdles, fences, ditches, walls, and posts. The obstacle course given in the appendix should be modified as follows for girls:

- (1) Use hurdling wall for vaulting.
- (2) Make scaling wall 6 feet in height.
- (3) Make climbing ladder 10 feet in height.
- (4) Build inclined wall at 30° angle to a height of 6 feet.
- (5) Make broad jump 6 feet in width.

Suggestions for teachers

- (1) Common sense and caution must be the guides in selection of obstacles.
- (2) Girls must be skilled in overcoming each obstacle before attempting the course as a whole.
- (3) The course may be used for both conditioning and competition.

(4) Competition may be against time, individual against individual, or group against group.

(5) When jumping from a height, soft landing surfaces or pits should always be provided.

(6) When jumping from a height the beginner should be started at approximately 3 feet.

(7) When skill in running the course is acquired each girl should practice carrying a pack weighing from 15 to 20 pounds to represent an infant or young child. This will give experience in a skill which the disasters of war may place upon girls and women, i. e., carrying infants and young children to safety. Each girl should learn to carry the pack in her arms as an infant is carried and on her back as a small child might be carried.

(d) *Relay racing* (Objectives 1, 2c, 4)

Relay races add interest and competition to the program, as well as vigorous exercise. Teams should number not more than eight so that few will be standing idle. The distances in the relays should be long enough so that the players get a real workout. The distances involved in the different relays may be progressively increased as the girls improve their physical condition.

Rather than disqualify a team when infractions occur, such as running out to meet the next runner, as players unintentionally will in the excitement of the race, it is better to charge a foul and add the number of fouls to the team's order of finish.

Shuttle Relay

Formation

1. Divide class into groups of not more than 8 in each group.
2. Establish starting lines at opposite ends of the running space, not less than 10 yards apart.
3. Half of each group (ones) stands behind one starting line, and the other half (twos) stands behind the opposite starting line. Players in each group stand one behind the other.

Description

At the signal, "Go," the first runner of the "ones" runs forward, crosses the starting line at the opposite end, touching off the first of the "twos." This player runs forward, crosses the starting line and touches off the second of the "ones." Each runner does the same in turn.

Jump Stick Relay

Formation

1. Divide class into groups of not more than 8 in each group.
2. Station runner number 1, 10 to 15 yards in front of her team, holding a wand or broomstick (about 3 feet long).

Description

At the signal, "Go," number 1 runs toward her team, holding one end of the stick. When she reaches her team, number 2 takes hold of the other end of the stick. Together they run toward the end of their team, holding the stick about a foot from the ground so that each player jumps over it as it moves along. Number 1 now stays at the end of the line. Number 2 takes the stick and runs to the starting point (10 yards in front). She repeats the first player's action. Each player does the same until number 1 is back at the starting line.

Duck Waddle

Formation

1. Divide class into groups of not more than 8 in each group.

2. Establish a turning point 5 to 10 yards in front of a starting line.

Description

The first player assumes a knees-bent position. In this position on the signal, "Go," she waddles to the turning point and returns, crossing the starting line. She touches off the next player who does the same. This continues until each one has had a turn. The team finishing first wins.

Hopping Relay

Formation

Same as for Duck waddle.

Description

The first player hops forward on one foot to a point 5 to 10 yards in front of starting line. She then turns and runs back to her team touching off the second runner. Each player repeats in turn.

See-Saw Relay

Formation

Same as for Duck waddle.



Description

Players 1 and 2 face each other, grasp hands, and sit on each other's feet, knees bent. In this position they travel to turning point and return, crossing the starting line. (The travel is accomplished by extending and bending knees). 1 goes to rear of team, 2 repeats with 3. Continue until each player has had a turn. The team which finishes first wins.

In-and-Out Relay

Formation

Same as for duck waddle.

Description

Four objects (benches, Indian clubs, or the like) are placed in line and 3 feet apart in front of each team. The first object is at the turning point.

The first player runs to the turning point, zigzags through the objects, and returns, crossing the starting line. She touches off the next player who does the same. Each player in succession repeats the activity until all have had a turn. The team finishing first wins.

2. Conditioning Drill

These can be adapted to indoor or outdoor use in limited space and require no equipment. Strength and endurance are developed quickly through regular use, especially if there is a steady increase in the number of times each exercise is performed.

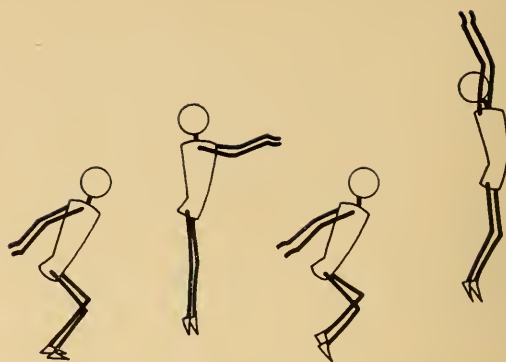
Formation

Open order. From closed order in a column of 3's or 4's. On the command, "Extend to the left, MARCH," all raise arms sideward and run to the left until there is at least 12 inches between finger tips. The girls on the right flank stand in place. "COVER," (i. e., straighten lines from front to back) and lower arms to sides. This is one of many ways of opening order.

Unit A

Exercise 1

Starting position: Stand with feet about a foot apart, knees slightly bent, arms raised backward. Count 1: Swing arms forward and jump in place. Count 2: Swing arms backward and jump in place. Count 3: Swing arms forward, upward, and jump upward at least a foot from the ground. Count 4: Swing arms backward and jump in



place. Swing arms hard and jump with vigor. Continue 5 to 12 times.

Exercise 2



Starting position: Position of attention.

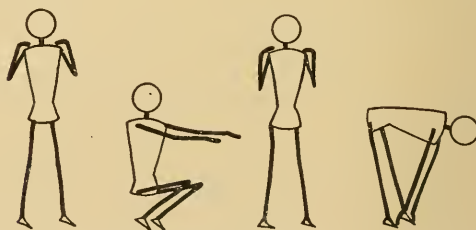
Count 1: Squat rest (a squat rest is a deep-knee bend with hands on floor in front of feet).

Count 2: Extend legs backward to front leaning rest (the body is straight from shoulders to feet, weight supported on hands and toes).

Count 3: Return to squat rest.

Count 4: Return to attention. 8 to 12 times.

Exercise 3



Starting position: Feet slightly apart, and elbows bent with fists at shoulders.

Count 1: Bend knees deeply and thrust arms forward, keeping body erect.

Count 2: Return to starting position.

Count 3: Bend trunk forward, and thrust arms downward, touching toes, keeping knees straight.

Count 4: Return to starting position. 8 to 12 times.

Exercise 4



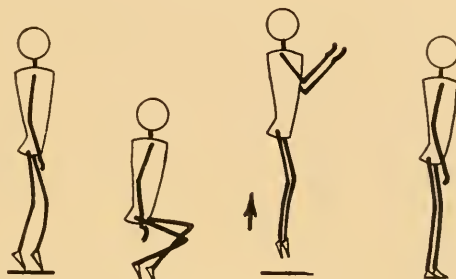
Starting position: Lie on back.

Count 1: Raise legs slowly swinging them overhead and touching toes to ground above head.

Count 2: Lower legs slowly to starting position. The count is slow. 4 to 8 times.

Unit B

Exercise 5



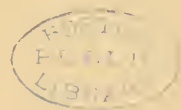
Starting position: Attention.

Counts 1-4: Walk forward on toes.

Count 5: Drop to full knee bend.

Counts 6-8: In deep-knee bend position, spring in place 3 times. 4 to 8 times.

Exercise 6



Starting position: Feet about 30 inches apart, arms fully extended over head, hands clasped.

Count 1: Bend sideward left.

Counts 2 and 3: Continue to bend to the left

trying to go deeper on each count.

Count 4: Return to starting position. Same right 8 to 12 times.

Exercise 7



Starting position: Lie on back with arms folded on chest.

Count 1: Sit up, keeping heels on floor and legs straight.

Count 2: Reach forward and touch toes.

Counts 3 and 4: Return to starting position. 4 to 8 times.

Exercise 8



Starting position: Position of attention.

Count 1: Squat rest (see exercise 2).

Count 2: Front leaning rest (see exercise 2).

Count 3: Bend elbows, touching chest to floor.

Count 4: Straighten elbows.

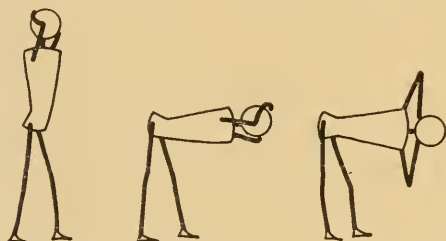
Counts 5 and 6: Repeat counts 3 and 4.

Count 7: Return to squat rest.

Count 8: Return to position of attention. 4 to 8 times.

Unit C

Exercise 9



Starting position: Feet about 24 inches apart, hands clasped behind head, elbows well back, chin in.

Count 1: Bend trunk forward.

Count 2: "Bounce" downward and at the same time rotate trunk to the left.

Count 3: "Bounce" downward and rotate trunk to the right.

Count 4: Return to starting position. 8 to 12 times.

Exercise 10



Starting position: Left foot about 8 inches forward, hands clasped on top of head.

Count 1: Sit on the right heel.

Count 2: Bounce from this position and spring upward, knees straight, change position of feet.

Count 3: Drop to squat on left heel.

Count 4: Spring and change position of feet. 4 to 16 times.

Exercise 11



Starting position: Lie on back, arms stretched sideward, palms up.

Count 1: Swing left leg upward and over to touch floor near right hand.

Count 2: Return to starting position.

Counts 3 and 4: Same with right leg. 16 to 24 times.

Exercise 12

Starting position: Arms raised sideward to shoulder height and feet about 24 inches apart.

Count 1: Bend and twist trunk to left, touching right hand to outside of left foot. Look up at left hand.

Count 2: Return to starting position.

Count 3: Repeat 1 to the right.

Count 4: Return to starting position. 16 to 24 times.

Suggestions for teachers

1. Insist on good form, i. e., exactly as described, and with energy in each movement.
2. Increase the number of times each exercise is performed, as the capacities of the individuals develop.

3. Sustained effort without rest or pause between exercises must be maintained. Each exercise must be thoroughly learned before going on to the next one. When the drill is memorized, then all the exercises should be done without stopping.

4. The class must master "unit A" before progressing to "unit B" and likewise "units A" and "B" before progressing to "unit C."

5. To master "unit A" means that the class is able to do better than the minimum set for each exercise before "unit B" is begun. Continue to increase the number of times in "unit A" as "unit B" is added. The same procedure is to be followed in adding "unit C."

6. Demonstrate each exercise before asking the class to do it. Correct demonstration is more valuable than a lengthy explanation.

7. Give commands clearly and concisely. The tone of voice can help materially in stimulating the class to action.

8. Observe the class from all angles, commenting on the good performance, correcting the faulty one. Urge all to better performance.

9. Encourage the improvement of performance by individual practice at home.

3. Apparatus

Exercise on apparatus is especially valuable in developing strength, agility, and endurance. Extreme care should be taken in the construction, maintenance, and use of apparatus to prevent accidents.

Formation

Keep the groups small to provide maximum participation.

Arrange the class and the apparatus so that—

(a) Those waiting their turns may see the performer.

(b) There is safe and easy access to and from the apparatus for the performer.

Apparatus and activities

(a) Climbing ropes and poles.

Climbing—

Ordinary climbing.

Swinging—

1. Swing on one rope.
2. Swing on two ropes vaulting for height over a rope stretched between jump standards.

(b) Horizontal bar (chinning bar)—

High bar (beyond reach).

1. Chin. Any grip.
2. Hang. Raise knees.

(c) Horse and buck—

1. Straddle vault over buck.
2. Side vault, left and right.
3. Front vault, left and right.

(d) Stall bars—

1. From a hang, facing bars—chin.
2. From a hang, back to bars.
 - (a) Knee raising.
 - (b) Leg raising.
3. Sitting on the floor or on a bench, feet fixed, lowering and raising trunk (sit ups).

(e) Flying rings—

1. Hang and chin.
2. Swing.
3. Swing and pull up at end of swing.
4. Swing and turn at end of swing.
5. Hang or swing—raise knees.

(f) Horizontal ladders—

Grip rounds or beams—

1. Chin (pull ups).
2. Travel forward.
3. Travel sideward.
4. Hang—raise knees.



Suggestions for teachers—

1. Mats should be used as a safety precaution.
2. Girls should be taught correct grips.
3. Assistance should be provided during practice periods.
4. The height of the apparatus should be dependent upon the height of the girls and the type of activity.

4. Locomotor and Axial Gymnastics

Acquiring skill in any activity is dependent largely upon timing and upon judging space relationships. As skill improves, harder and longer periods of work can be sustained if a rhythm of work is established.

Locomotor and axial gymnastics are of value in contributing this particular training to war-time efficiency. In addition they contribute to a marked degree in the development of endurance and strength.

Objectives:

1. To increase skill, endurance, strength, and agility.
2. To develop space judgment.
3. To develop timing.

Organization:

1. Size of classes should depend upon facilities, equipment, and experience of teachers.
2. Falls should be done only if the floor is of wood and in good condition.
3. If floor is constructed on concrete, elevations and jumps should be used very little.
4. A great deal of the program can be carried on outdoors.
5. If piano or pianist is not available, drum beat, victrola, or singing may be used.

Activities

The following program is in no way complete. The teacher is encouraged to use her own initiative in adapting and supplementing this material in relation to her own situation and the needs of her group.

In teaching locomotor and axial gymnastics, it is ordinarily advisable to have each individual in the class try the exercise first at her own speed. Then the teacher should set a common tempo which meets the average of the group. To provide greater training in skill and agility, certain exercises may be practiced at increased or reduced speeds rather than at optimum tempo.

Accompaniment

Various forms of accompaniment are suitable for locomotor and axial gymnastics. Among these are the piano, phonograph recordings, and percussion instruments such as the drum and tom-tom. The piano, with a skillful accompanist is the most desirable. Satisfactory results can be obtained, however, through the use of recordings or percussion instruments.

In the selection of music—

- (a) Good collections of musical materials are available for the piano. (See bibliography for suggestions.)
- (b) Commercial recordings are numerous and acceptable.
- (c) There is a growing practice of making one's own recordings from original material.

In the use of accompaniment the teacher is cautioned to (1) avoid undue stress of accent in measure and phrase, and (2) avoid using the same selection again and again.

Anyone with ordinary sense of rhythm can use percussion instruments successfully and technique can be developed to a high degree. Excellent results are obtained if the accompanist swings into the movement as she beats the instrument. The teacher inexperienced in percussion technique should start by using a single drum, which provides basic rhythm, but no melody. As skill develops, several drums tuned differently may be used, as well as gongs and wooden blocks to provide rudimentary melody. The rhythmic pattern should be varied to avoid monotony.

Conditioning¹

- (a) Stretching and general conditioning (Objective 1).
1. Standing stride position bend at waist, body hanging loosely from hips, knees bent, bounce trunk forward several times. Repeat side-ward, rotating trunk.
2. Standing stride, circle trunk.



3. Sitting, knees bent outward, feet together, bounce down, then stretch body from base of spine to neck.
4. Sitting, legs forward, knees extended, do 3.
5. Repeat with arm in various raised positions.
6. Sitting wide stride, do 3 forward and side-ward.

¹ See appendix for a glossary of terms.



7. Lie on back, one leg raised vertically. Flex both knees slightly and flex both ankles as much as possible. The sole of the raised foot should be parallel with the ceiling. On Count 1, extend both knees and both ankles without moving the heel that is on the floor. On Count 2, return to the flexed position. Do exercise 8 times, alternating legs, and then gradually increase until the exercise can be done 16 times in good form.

8. Lunge bounce.



In a long lunge position with the right foot forward, right knee well forward and left knee extended, hands on the floor, bounce 8 times. With a jump of legs, hands still on floor, change position so that left foot is forward and repeat 8 bounces. Continue the series with 4 bounces right and left, 2 bounces right and left, and then single changes of feet—right, left, right, left. The hands remain on the floor throughout the exercise. Progression: After this exercise is executed easily in good form, do the same exercise with the same position of the body, but do not touch the floor with hands. This greatly increases the difficulty because of the addition of the balance factor. Accompaniment: 2/4, 4/4, or 6/8 march time.

9. Jack-knife lift.



Lie on the floor on back, body fully extended, arms close to sides. With strong abdominal pull and lift of legs, come to a jack-knife position. Legs are straight, back is straight and neither flexed nor overextended. Arms move forward at the same time until the hands touch

the thighs. Elbows are extended. Return to lying position. Timing: 1-2 Lift, 3-4 Lie. Accompaniment: 4/4 time.

(b) Locomotor movements, (Objectives 1, 2, and 3).

1. Walk, run, leap, skip, slide, gallop, hop, jump. Marching is one style of locomotor movement. (Marching tactics are described in Chapter IV).

(c) Non-locomotor movements. (Objectives 1, 3, 4)

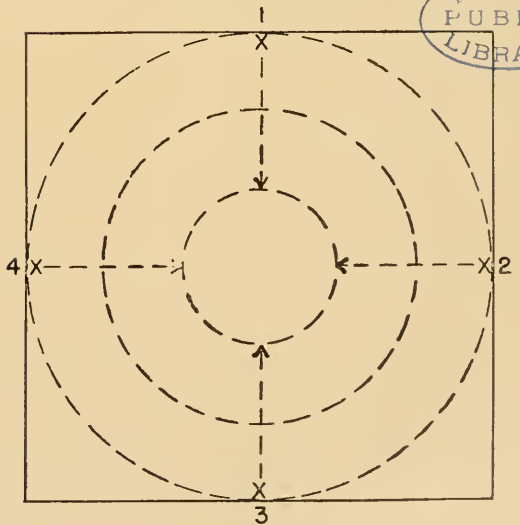
Push, pull, lift, dodge, kick, strike, pendulum swing of body sideward, trunk completely relaxed and bent at waist.

KEEP MOVING

TIMING PLAN

4 Girls	○	○
Others	♪♪♪♪	♪♪♪♪

SPACE PLAN



(d) Keep moving. (Objective 2)

Four girls stand, one at the center of each wall of the room. The other girls are in scattered formation, facing different directions, spread over the entire floor. The 4 girls walk slowly forward toward the center of the room. They de-

fine the circumference of an imaginary circle which gradually diminishes in size and within which the other girls must continue to move. The other girls run with quick steps within the defined space, dodging and turning to escape touching anyone else. This exercise should be practiced to the beat of a drum or piano, using a whole note for each step of the 4 girls and eighth notes for the steps of the others. The teacher gives a signal for the completion of the exercise when the space becomes too small for further movement.

(e) Follow the leader. (Objective 2)

The class is divided into a number of files of 4 to 12 girls; 6 girls is a good average length of file. Hands may be joined or not dependent upon movement used. The first girl in each file is a leader. Each leader leads her file, using forward, diagonal, sideward, zigzag, and turning directions. The others in her file do as she does at the same time. The leader should use simple steps of walking, running, sliding, skipping, galloping. She must adapt her direction to the other groups in the room. One of the objectives of the exercise should be that the leaders learn to use the space efficiently in a collaborative way. The teacher will set a different tempo each time the exercise is repeated, varying slows and fasts. As the students become more expert, the leaders will make the movements more difficult in space, in rhythm and in coordination of movement. *Caution to the teacher:* This exercise should be rhythmically disciplined and the game element involved should not lead to a lack of control.

Sit fall and rise. (Objectives 2, 3, 1)

(1) Sit fall. Class faces front, scattered formation with at least 6 feet clear floor space behind each girl. Little space is needed sideways. *First* let head relax and fall forward, shoulders forward, whole body flexed until hands touch floor at feet. *Second*, let right foot slide forward and sit. *Third*, lie back letting the whole body extend from hips up and from hips down. Arms spread sideward with the extension of upper trunk. Timing: Use counts 1-4 for *first* part; count 5 for *second* part; and counts 6-8 for *third* part. Thus, the fall can be done to 2 measures of 4/4 time.

(2) Rise from back. *First*, bend left knee keeping left foot in contact with the floor and as knee is bent, kick right leg in the air as a movement preparatory to sitting up. *Second*, swing the right leg and arms down forcefully, reach forward with head, shoulders, and arms. *Third*, step forward onto the right foot, body still in crouched position. *Fourth*, continue to rise to an erect position and bring left foot up to meet right. Timing: Kick up on Count 1, kick down on Count 2, step on Count 3, rise on Counts 4-8. Thus the rise can be done to 2 measures of 4/4 time.

Teaching note: If girls are not strong enough to do exercise as described, have them place hands on floor at hips on the *second* part of the rising movement and push off floor with hands. If any girls have had knee injuries that make extreme flexion of knee inadvisable, teach roll to one and rise from that position. (See Exercise 9 b). Repeat above fall (8 counts), rise (8 counts), and then repeat to 6, 4 and 2 counts, alternating feet and legs on slide out and kick, as follows:



- | | | |
|----------|---|---|
| 8 counts | { | 1-4 touch floor with hands |
| | | 5-8 foot forward, sit and lie |
| | | 1-2 kick up and down |
| | | 3- step |
| 6 counts | { | 4-8 rise to position |
| | | 1-3 touch floor with hands |
| | | 4-6 foot forward, sit and lie |
| | | 1-2 kick up and down |
| 4 counts | { | 3- step |
| | | 4-6 rise to position |
| | | 1-2 touch floor with hands |
| | | 3-4 foot forward, sit and lie |
| 2 counts | { | 1-2 kick up and down |
| | | 3-4 step and rise to position |
| | | 1-2 touch floor with hands, foot forward, sit and lie |
| | | 1-2 kick up and down, step and rise to position |

Progression: Do exercise first at 8 count speed only, then add gradually other speeds until the group can do a series twice through at each speed with no stop.

(g) Side fall and rise. (Objectives 2, 1, 3, 3)

(1) Side fall 1. Class faces front in scattered formation with at least 6 feet clear floor space on side toward which fall is to be done. Little space is needed forward or backward. Class stands stride, weight even, arms at sides. *First*, swing weight onto right foot raising left leg diagonally backward left and swinging both arms

diagonally upward right. This is a preparatory movement. *Second*, keeping left foot off floor, bend right knee and lower body to floor as the arms sweep down in an arc from diagonally upward right to diagonally downward left going through a point in front of right foot and continuing to slide out on floor to left, as the outside of the left leg is lowered to the floor. The left foot stays behind the right. The second part of the movement is continuous with no break and at the completion of the movement, the body is lying on the left side on the floor in an extended position, left arm stretched beyond the head, right hand on floor in front of chest. It is important that the body strike the floor along the outside of the left thigh and leg to avoid bumping the left knee. When the fall is executed to left, body weight is used to right as a brake to control fall.

(2) Rise from side. *First*, push off from the floor pulling with right trunk muscles and pushing with hands only if necessary. Step side-ward to right as body crouches ready to rise. Do not step on left foot, but pushing down with right foot extend the body upward, swinging the arms diagonally upward right. The weight is on the right foot at finish of rise. The first part of the rise is continuous with no break. *Second*, step on left foot finishing in stride position with arms at sides.



Timing:

- 1-2 *First* part of side fall
- 3-4 *Second* part of side fall
- 5-6 *First* part of rise from side
- 7-8 *Second* part of rise from side

(3) Repeat exercise to right.

(4) Repeat exercise in a series alternating left and right, starting with 4 falls and adding units of 2 until 12 falls can be executed in good form.

(5) Add hop to *first* part of side fall.

(6) Use different timings for fall and rise.

(7) Do (5) and add roll to back and onto other side in *second* part of side fall before executing rise from side. This roll should be continuous with the fall.

(8) Precede the fall and rise exercise with other exercises such as sideward pendulum swing.

(9) Side fall II. *First*, do first part of side fall I, as in above, weight is now on right foot. *Second*, stretch body and arms as high as possible diagonally upward right, then swing body and arms in a full circle high across to left, down left and under and out to right, as the left foot steps across in front of the right and body slides to the floor on the right side. The arms and body weight are used to the left as a brake when falling to the right. Timing: As for side fall I. Rise: As for side fall I.

(h) Roll over fall and rise. (Objectives 2b, 1, 3, 4).

(1) This exercise progresses in a diagonal zigzag pattern, forward on the walking, sideward on the roll. Assume half knee-bend position. *First*, low walk forward left, right, left, right. *Second*, with the right foot in advance the roll over will be to the left. Flex body forward and twist slightly to right, tucking both elbows into abdomen. Roll over to left striking the floor on left shoulder, rolling onto back. To rise, push flexed right arm against the floor accompanied by a sharp extension of left leg. Finish on right knee with left foot free to start *first* part of movement again.

Timing:

- 1-4 walk left, right, left, right.
 - 5-6 roll over to left.
- Repeat to same side.

(2) Vary level and direction of walk and timing.

(3) Spring roll fall and rise. Stand with feet about 12 inches apart, arms at sides. *First*, step hop diagonally sideward right swinging both arms diagonally upward right. *Second*, flex body, tucking both elbows into abdomen, and execute roll over as described in the second part of (1) above pushing off floor in the same fashion. *Third*, with no stop between *second* and *third* parts of the movement, step on left foot and extend body to erect position lifting both arms diagonally upward left.

Timing:

- 1 ah—step hop right
- 2—roll over
- 3—rise on left foot
- 4—precede (3) with a run on the diagonal

Timing:

- 1 and 2 and—Run right, left, right, left.
- 3 ah—step, hop right
- 4—roll over
- 5—rise on left foot.

Repeat and reverse.

5. Combine (3) with other movements and vary timing.

(i) Large and small. (Objective 2)

(1) Walk 4 very long reaching steps using a vigorous swing of the arms and immediately walk 4 very small steps using a little swing of the arms.

Timing:

- | | |
|--------------------------------|------------|
| Counts 1, 2, 3, 4, long steps | } 4/4 time |
| Counts 5, 6, 7, 8, small steps | |
| Counts 1, 2, 3, 4, long steps | } 6/4 time |
| Counts 5 and 6, small steps | |

(2) Apply the above principle of large and small movement to other locomotor movements such as run, skip, slide, and to non-locomotor movements such as push, pull, circling of trunk.

(3) Mark off a space of about 20 feet in width. Move across this space in 15 steps; in 10 steps; in 8 steps; in the fewest possible steps using leaps. Then increase the width of the space and add to the number of steps as the space demands. Do this exercise with each girl establishing her own timing. Later the teacher establishes a common timing derived from the average of the group.

(j) Strong and light. (Objectives 1, 3)

(1) Stand stride position. Strike forcefully forward with right arm, left arm, and repeat right and left. Rotate the trunk somewhat with the force of the striking movement and keep the legs and trunk taut throughout. Now reach forward lightly with the right arm, left arm, and repeat right and left. Rotate the trunk, letting the shoulder follow through into the reaching movement. The head should also follow through. In both strong and light units of this exercise keep the weight centered.

Timing:

Counts 1, 2, 3, 4, strike right, left, right, left.
Counts 5, 6, reach right
Counts 7, 8, reach left
Counts 9, 10, reach right
Counts 11, 12, reach left

Accompaniment:

If using music, ask the accompanist to improvise 4/4 time in 3-measure phrases. If using music already written, do 8 instead of 4 striking movements which will lengthen the exercise to 16 counts or 4 measures of 4/4 time thus fitting into the usual 4-measure phrase of music.

(2) Do this exercise using the timing principles suggested in i (1) above.

(3) Devise patterns of strong and light locomotor movements as well as other non-locomotor movements.

(4) Experiment with strong, small movements and light, large movements and the reverse of this. Vary the timings of these movements.

(5) Develop a strong, vertical jump from a light, easy bounce, gradually making the bounce stronger and larger until the body is propelled into a low vertical jump; continue to increase the strength of the movement until the jump is as high and strong as possible for each girl in the class. Let each girl set her own speed for this exercise.

(k) Fast and slow. (Objectives 1 and 3)

(1) Using walking and running steps, travel around the room in a circle starting slowly, gradually increasing speed, then gradually decreasing speed. Follow either the beat of a drum

or music played by an accompanist. Take each beat of the drum or each note of the music as a step.

(2) Using an exercise which the class has already mastered, execute it at speeds faster than normal; at speeds slower than normal; at gradually increasing speed; at gradually decreasing speed.

(l) Large-small, strong light, fast-slow. (Objectives 1, 2, 3, 4)

These factors are inter-related. For instance, in natural movement, as a walk becomes a run and then a leap, each movement becomes larger in space and stronger in dynamics or force. Changing the natural degree of one or more of these factors leads to the discovery of a much broader field of movement. Certain elements of style will also develop from such experimentation.

(1) Do a large, strong, slow movement. Now do a large, strong, fast movement.

(2) Do a small, light, fast movement. Now do a small, strong, slow movement.

(3) Running diagonally across the room
Run gradually faster and lighter.
Run gradually faster and stronger.
Run gradually slower and stronger.
Run gradually slower and lighter.

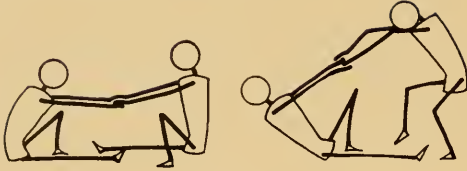


(m) Meter. (Synonymous with time). (Objective 3)

(1) As far as possible experience should be given in moving to the following meters: 2/4. 3/4. 4/4. 5/4; 6/8. 9/8. 12/8.

(2) Changing meter. Circling the room, walk forward 4 steps starting with the right foot. Turn in place to the right with 3 steps starting with the right foot. Repeat all of this continuing in the line of direction, starting with the left foot and executing the turn to the left. Use one measure of 4/4 time and one measure of 3/4 and repeat. Experiment with other locomotor and nonlocomotor patterns of movement using various kinds of changing meters. Experiments of this kind should *emphasize movement* and should not become mathematical exercises. Too often manipulation of rhythmic devices becomes an end in itself rather than taking its rightful place as a means to better and more functional movement.

(n) See-saw. (Objectives 1 and 3)



The group is divided in couples scattered over the floor. The partners sit facing each other, hands joined, left side to left side. The left knee is fully bent with the left foot on the floor. The right leg is extended forward. Number one rocks back giving a steady pressure upward with hands and arms to rock and lift 2 forward. 2 rises on the left foot, with the right foot lifted off the floor, trunk flexed forward and head forward, right hip flexed close to body and knee and ankle slightly flexed. Now 2 rocks back

to the floor, lifting 1. In rising from the floor a strong pull of the abdominal muscles should be used instead of depending upon the pull of the partner's arm.

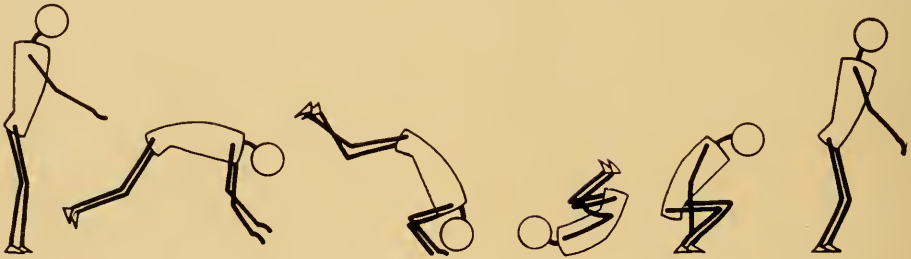
Timing: Use slow 4/4 time with 2 counts for each rock or slow 6/8 time with one measure for each rock.

The group may make new exercises of their own in couples.

4. Self-testing activities

Many of the activities given here teach girls to:

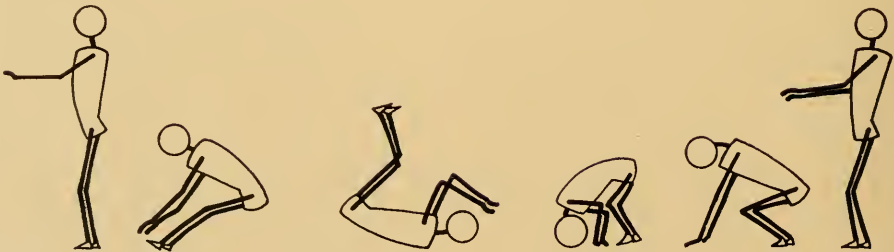
- (1) jump and fall without being hurt.
- (2) have a sense of position in space.
- (3) develop an ability to carry another without injury to self.
- (4) control the body in flight.



(a) Forward roll.

From a stand, bend forward, bend knees, and place hands on mat. Duck head between legs,

roll forward on back of neck and shoulders, grasping the knees. Come to a stand.



(b) Backward roll.

From a stand, lean forward, fall backward to a seat, roll backward placing hands on the mat

over the shoulders, and at the same time drawing the knees to the chest. Push off with hands, and roll to a stand.



(c) Cartwheel.

From a run, make a quarter turn left, placing right foot sideward, right arm upward, throw the weight on the right foot, placing the right hand on the mat. Raise the left leg, at the same time placing the left hand on the mat, arms and legs spread. Bring the left foot to the mat as the right hand is raised. Follow through to a stand.

(d) Jump from heights.

Use any available apparatus or platform. Begin at 3 feet and gradually increase the height to 6 feet. Break the fall by landing on the balls of the feet, and bending the knees. A landing pit or mats should be used.

(e) Elephant walk.

Starting position: Partners face each other; with number 2 in a stride position. Number 1 places her hands on number 2's shoulders, jumps and wraps her legs around number 2's legs high under number 1's arms. Number 1 lowers her body backward, places her hands and head between number 2's legs, and grasps number 2's ankles. Number 2 bends forward, places her hands on the mat and walks forward. Keep arms straight. Number 1 locks her feet to keep from slipping.



(f) Rocking chair.

Starting position: Partners sit facing each other, knees bent slightly. 1's legs are on the outside of 2's. Sit on partner's feet and grasp partner's shoulders. 1 rocks back and pulls 2 up, at the same time keeping her own feet in contact with 2's body. 1 then rocks forward, while 2 rocks backward pulling 1 up. Continue rocking as high as possible.

(g) Tandem walk.

Starting position: 1 stands close behind 2. 1 jumps on 2's back and locks her legs high under 2's arms. 2 bends forward placing her hands on the mat. 1 reaches over 2's head placing her hands on the mat in front of 2's hands. Both walk forward, 1 using hands and feet, 2 using hands.

(h) Double roll.

Starting position: 1 lies on her back, legs raised upward, feet apart; 2 stands astride 1's head, and grasps 1's ankles. 1 grasps 2's ankles (her arms between 2's legs). In this position 2 springs, tucks her head under, and does a forward roll, close to 1's body. As 2 rolls, she pulls 1 to standing position. 1 then does a forward roll, pulling 2 to a stand. Continue. Make the roll quick and powerful to bring partner to a stand.

(i) Bicycling.

Starting position: Lie on back with hands under the hips and legs raised upward. Imitate bicycling, stretching high on each push of the imaginary pedal. Continue as long as possible.

(j) Rope skipping.

Single rope

Jump on both feet—alternate left and right hop, left foot, right held forward

Jump turning to the right in a circle

Jump circling the rope backward

Sports and Games

Sports and games are an important part of the general conditioning program. They provide opportunity for strenuous big-muscle activity and contribute to the development of speed and endurance. In addition to these obvious values, sports and games afford wide opportunity for the practice of desirable character traits. Only those sports and games have been selected which contribute to the development of strength and endurance. Many well-loved games have been omitted. Tennis, for example, is not included because considerable skill is required before maximum value is secured.

Objectives

1. To develop speed, strength, and endurance.
2. To provide opportunity for the practice of desirable character traits.
3. To develop skills useful in leisure time.

Organization

1. All girls should participate.
2. Girls' rules should be used.
3. Women teachers should be in charge of the program.
4. The standards of the National Section on Women's Athletics should govern the program.¹

¹ National Section on Women's Athletics, *Standards in Athletics for Girls and Women*. Washington, D. C., 1201 16th Street, NW.

Teaching procedures for all team games

1. Explain in general the idea of the game and the terms most often used.
2. Group students according to similar ability.
3. Use explanation, demonstration, and other teaching aids in presenting techniques.
4. Practice skills in groups with trained student leaders in charge.
5. Keep each student busy practicing some skill. The skill should be chosen with respect to her level of achievement.
6. Give student sufficient time to practice skill so that she may improve her performance.
7. Use skills in real game situations as soon as possible.
8. Devote a part of every period to improving old or learning new skills.
9. Concentrate on essentials for beginners.
10. Present more advanced skills and strategy of playing as soon as players acquire elementary skills.
11. Train students to officiate as they learn the game.
12. Emphasize the importance of safety. It is the teacher's responsibility to keep equipment in good condition. It is the players' responsibility to keep play areas clear of hazards and to discipline those members of the class who frequently cause accidents.

Fundamental game skills

A. Passing

1. Chest pass
2. Double underhand pass
3. Single underhand pass
4. Shoulder pass
5. Double overhead pass
6. Sidearm pass
7. Hook pass
8. Bounce pass

B. Turning

1. Reverse turn
2. Pivot

C. Kicking

1. Dribbling
2. Punt
3. Drop kick
4. With instep
5. With outside of foot
6. With heel
7. With inside of foot

D. Strategy and Tactics

1. Passing
2. Evading
3. Shooting
4. Tackling
5. Guarding
6. Interchanging
7. Intercepting
8. Offensive and defensive playing as a team
9. Duties of defensive players
10. Duties of offensive players
11. Duties of each position on the team.

E. Trapping

1. With foot
2. With leg
3. With body

F. Volleying

1. Knee
2. Head
3. Shoulder
4. Inside of foot

G. Catching

1. Low balls
2. High balls
3. Fast balls

Points in Common Between Fieldball; Field Hockey; Soccer, and Speedball

1. There are 11 players on a team.
2. The tactics and strategy are similar.
3. Officiating is similar.
4. A throw-in is used when the ball goes out of bounds.
5. The ball is put into play in the center of the field.
6. The scoring area is somewhat the same.
7. The basic formation is the same.

Lead-up Games

Lead-up games are used primarily to improve the player's skill level in a definite technique. More specifically, these games may be used effectively to practice isolated techniques prior to their application in the more highly organized game, and to practice the skill in groups while the regular game is in progress. The choice of the lead-up game depends upon: (1) space available to practice with safety, (2) the level of skill of

the performer, (3) the number of students practicing, and (4) the amount of equipment on hand.

In the discussion of each game a list of lead-up games is included. It is suggested that the teacher improvise her own lead-up games based upon the needs of her pupils and the available facilities. Pupils may be encouraged to create methods of practicing skills and techniques.

Field-ball

This game can be used as an excellent lead-up game for either basketball or speedball. For description of field ball, *see bibliography*.

Presentation of skills and techniques

A. Skill activities

1. Passes. *See fundamental game skills.*
2. Turning. *See fundamental game skills.*
3. Strategy and tactics. *See fundamental game skills.*
4. Catching. *See fundamental game skills.*

Lead-up Games

1. Field ball defense game. To give goalers and fullbacks practice in defending goal.
2. Endball. To give forwards practice in passing; to give guards practice in guarding.
3. *See lead-up games for basketball.*

Soccer

For a full description of soccer *see bibliography*.

Presentation of Skills and Techniques

A. Skill activities

1. Kicking. *See fundamental game skills.*
2. Volleying. *See fundamental game skills.*
3. Trapping. *See fundamental game skills.*
4. Strategy and tactics. *See fundamental game skills.*

Lead-up Games

1. Kick ball. To give practice in kicking for goal and blocking.
2. Line kick. To give practice in kicking and blocking.
3. Versatile soccer. To give practice in kicking and trapping.
4. Block soccer. To give practice in blocking, trapping, and tackling.

5. Throw-in soccer. To give practice in correct throwing-in and dodging.
6. Block kick soccer. To give practice in recovering ball, passing, kicking, and defending goal.

Speedball

Speedball is a highly organized team game combining the skills of basketball, fieldball, and soccer. It is a fast, vigorous game which develops the muscles of the arm and shoulder girdle, trunk, and legs. It can be played in a modified form by younger players also, or those whose skill has not been developed.

For a description of speedball *see* bibliography.

Presentation of Skills and Techniques

A. Skill activities

1. Passing. *See* fundamental game skills.
2. Kicking. *See* fundamental game skills.
3. Strategy and tactics. *See* fundamental game skills.
4. Turning. *See* fundamental game skills, Section B.
5. Trapping. *See* fundamental game skills, Section E.
6. Catching. *See* fundamental game skills, Section G.
7. The kicking skills of punting and drop kicking should be practiced so that all members of the class are proficient in their use.
8. The kick-up to oneself or to another player should also be practiced by the whole class.

Lead-up games¹

Refer to *Official Basketball Guide* and *Official Soccer, Speedball, and Fieldball Guides*. New York, N. Y., A. S. Barnes and Co.

1. Speedball technique game. To give practice in playing techniques of speedball.
2. Speedball reaction game. To give practice in quick reaction to speedball playing situations.
3. Forward pass speedball. To give practice in the skill of lifting ball to oneself or lifting it to another player.

¹ Hillas, Marjorie and Knighton, Marion. *An Athletic Program for High-School and College Women*. New York, A. S. Barnes and Company, 1929.

Field hockey

Field hockey is a highly organized team game. It affords much satisfaction and enjoyment to the players. The cost of equipment is high but with proper care it lasts a long time. The game demands skillful stick-work on the part of the players. Many of the skills found in other sports are carried over into field hockey, but are done with the stick instead of the body. For a complete description of field hockey *see* bibliography.

Presentation of Skills and Techniques

A. Skill activities

1. Strategy and tactics. *See* fundamental game skills, Section D.
2. Stick work. Since much of the game is dependent on skillful stick-work, there must be frequent drill for the practice of the following skills.
 - (a) Drive
 - (b) Dribble
 - (c) Push pass
 - (d) Flick
 - (e) Scoop
 - (f) Right out
 - (g) Left-hand lunge
 - (h) Right-hand lunge
 - (i) Job
 - (j) Reverse stroke
 - (k) Bully

Basketball

Basketball is essentially an indoor game and requires little equipment and comparatively small space. Though the number on a team is few, properly supervised mass games can be used to engage more players. Since basketball is a game of ball handling and fast change of direction, the player must learn to control her body effectively and easily.

Presentation of Skills and Techniques

A. Skill activities

1. Catching. *See* fundamental game skills, Section G, 1, 2, 3.
2. Passing. *See* fundamental game skills, Section A.



3. Turning. *See* fundamental game skills, Section B.

4. Strategy and tactics. *See* fundamental game skills, Section D.

5. Shooting

- (a) Overhead loop shot
- (b) Underhand loop shot
- (c) Chest shot
- (d) One-hand push shot
- (e) Hook shot
- (f) Two-hand shoulder shot

B. Teaching procedures

- 1. Special attention should be given to the development of skill in shooting as it is an important part of the game. This particular skill is of a different nature than the scoring skills of the team games discussed up to this point.
- 2. The practice of shooting may be done in combination with other skills like passing and running.

2. Six passes and shoot. To give practice in passing.

3. Six-section basketball. To give practice in the rudiments of basketball to a large number of players.

4. Four forward shoot. To give practice in accurate attack which eliminates unnecessary passing.

5. Circle goal ball. To give practice in the rudiments of shooting, passing, position plays, and guarding.

6. Tri pass. To give practice in triangular type of passing which is effective in basketball.

Volleyball

Volleyball is an excellent game for a girls' activity program. It can take care of large numbers in a comparatively small space. Though the game varies throughout the country, official rules compiled by the National Section on Women's Athletics are available.

*Lead-up games*¹

- 1. Count passes. To give practice in passing.

¹ Hillas and Knighton. *Op. cit.*

Presentation of Skills and Techniques

A. Skill activities

1. Strategy and tactics. *See* fundamental game skills.
2. Striking the ball with the hands
 - (a) Serve, underhand and overhand
 - (b) Return high balls, low balls, net balls, and spiked balls.
3. Rotation—circle type.
4. Set up, attack, relaying.

B. Teaching procedures

1. Class must be drilled on serving skill. Use wall as well as net.
2. Give training in the use of the body in returning high and low balls.
3. Stress the importance of direction in controlling accuracy.
4. Advanced players may be taught the set-up and attack, interchange, overhand serve, and spiking.
5. Use lead-up games with beginners to teach them skills and to keep them active.

Lead-up Games

1. Practice drills for volleying technique. To give practice in volleying.
2. Volleyball clock.¹ To give practice in serving and direction.
3. Volleyball keep over.¹ To give practice in handling of volleyball.

Individual sports for use in the out-of-school program

The out-of-school program offers opportunity for girls to participate in many individual sports which are not included in the class program because of the nature of the sport. The organization of clubs for hiking, riding, and bicycling is a responsibility of the physical education teacher and will promote interest and participation. These activities are desirable for week ends, after school, and holidays. The sports suggested here have been selected because they contribute directly to the objectives of the entire program. The inference must not be drawn that this is the complete field of individual sports.

Hiking

Hiking, to be of immediate value in a program of physical fitness must be brisk and reasonably long. Rests should be few and brief.

Camping

There are experiences in camping which are unmatched in any other situation. To live off the land, to take care of oneself against the onslaught of the elements, to live peaceably with fellow campers under primitive conditions are challenges every girl should have the opportunity to meet. Successful camping requires careful supervision of program, site, and sanitation.

Skating—Ice and roller

Skating is an enjoyable and inexpensive sport and if practiced regularly is a fine developer of endurance and speed.

Bicycling

Bicycling is of value in developing strength of legs and ankles.

Skiing and snowshoeing

Skiing and snowshoeing are exhilarating sports for girls living in snow areas. Proper equipment is necessary for safety. Both sports can be enjoyed through adult life if reasonable skill is acquired.

Horseback riding

Horseback riding is an increasingly popular sport. Expensive riding habits are not essential. The cost of hiring horses may limit participation but costs may be cut by riding in groups.

Skeet shooting

This sport develops a skill which may prove to be of value to girls in possible war service—the skill of shooting at moving objects.

¹ Bancroft, Jessie. *Games*. New York, The MacMillan Company, 1937.

CHAPTER VI

Standards and Tests

Use of Standards

THE ACHIEVEMENT standards listed in this chapter have been taken from the best available sources. The present standards probably will soon become obsolete and need revision. In the broad program of physical education, the attainment of specific standards is a part of the total program. In the program of training for physical fitness, teachers should stress the daily performance of special activities with ever-increasing frequency and duration of participation. As this procedure is followed, improvement in ability will be rapid and new standards will evolve. There are no suitable standards available for some activities. Pending the publication of needed standards, teachers should make use of class averages for guidance.

The standards published here constitute the best available evidence of satisfactory performance. They do not constitute valid criteria of optimum performance. Standards of optimum performance must be determined through experimentation and then published for the guidance of teachers. For the present, pupils able to secure "superior" ratings in any test items should be encouraged to spend more time in the items of the program in which their ratings are below the level of "superior."

The Pulse Rate Recovery Test

Many teachers of physical education have used and found helpful one or more of the Pulse Rate Recovery Tests that have appeared in the literature of the field. Studies of these

tests have indicated that some of them do not give a valid or reliable indication of athletic condition or circulatory efficiency. In Chapter III of this bulletin, recommendations are made concerning the use that should be made of pulse rate recovery tests by teachers.

A description of measuring instruments of this kind may be found in several publications on tests and measurements in physical education.¹

Achievement Tests

To conserve time in testing, detailed standards are given for several tests from which the instructor should choose 10 as a battery. The tests have been grouped into three categories according to the general muscle groups primarily tested, namely, (1) arm and shoulder girdle, (2) abdomen and back, and (3) legs. It is recommended that in any battery of 10 tests that no fewer than 3 tests be chosen from each category and that the first test listed in each category be included. In a battery of 5 tests or any other number always include the first test listed in each category. Until data are available for the tests under Category II use the average performance of a classified group as "good," and locate the other ratings at the 10, 25, 75, and 90 percentiles.

Category I (Arm and Shoulder Girdle)

1. Push-ups
2. Pull-ups

¹ Bovard, John F. and Cozens, Frederick W. *Tests and Measurements in Physical Education*. Philadelphia, W. B. Saunders Company, 1938. Pp. 44-103.

McCloy, Charles Harold. *Tests and Measurements in Health and Physical Education*. New York, F. S. Crofts and Company, 1939. Pp. 238-255.

3. Dips on parallel bars*
4. 15-foot rope climb
5. Bar vault

Category II (Abdomen and Back)

There are no accepted standards available for these events.

6. Sit-ups
7. Hanging half lever
8. Leg lift
9. Forward bend
10. Bank Twist

Category III (Legs)

11. Potato race
12. Jump and reach
13. Standing broad jump
14. Running broad jump
15. Running high jump
16. 100-yard dash
17. 440-yard run*
18. 880-yard run*

Description of Tests and Standards

Boys to meet all standards

(Legend: S=Standard)

I. Aquatics

The ability to:

- S-1 float for 2 minutes either without clothes or with bathing suit.
- S-2 remain afloat for 5 minutes or more by sculling (with clothing).
- S-3 remain afloat for 5 minutes or more by treading water (with clothing).
- S-4 swim the side stroke 50 yards (with clothing).
- S-5 swim the breast stroke 100 yards (with clothing).
- S-6 swim the back stroke 50 yards immediately after swimming the side stroke 50 yards (with clothing).
- S-7 swim 250 yards with any overarm stroke (with clothing).
- S-8 swim any style for one-half mile (with clothing).
- S-9 swim 20 feet under water (with clothing).
- S-10 remain under water for 1 minute.
- S-11 meet the standards of the American Red Cross for Lifesaving.

II. Gymnastics

The ability to:

- S-12 march 1 mile in 12 minutes.
- S-13 walk and run 2 miles in 20 minutes.
- S-14 walk and run 10 miles in 2 hours.
- S-15 shoulder another person, using the firemen's carry, who is within 5 lbs. of his own weight, from a position of lying on the floor, and carry him 20 yards in 8 seconds.
- S-16 do exercise No. 2 15 times in 30 seconds. This exercise is described in Chapter IV on Activities for Boys.
- S-17 hop on either right or left leg 20 yards in 7 seconds.

Classification for Achievement Testing

Boys in high school differ greatly in age, height, and weight. These factors tend to favor or handicap them in athletic performance. To classify boys according to only one of these factors is less fair than to take all three factors into consideration. Therefore, the following classification plan should be used for a classification of the boys before the achievement tests are given:

Determine for each boy his age in years and months (to the nearest month), his height (to the nearest half-inch), and his weight (to the nearest pound). In doing this, use any method that will save time and give fairly accurate measurements. After these measurements have been secured, refer to the table for classification. For example, a boy's age is 14 years and 10 months, his height 61½ inches, and his weight 136 pounds. The exponent for 14 years and 10 months is 30, the exponent for 61½ inches is 29, and the exponent for 136 pounds is 22. The sum of these exponents, 30, 29, 22, total 81. We find from the table that the boy is in class C and is expected to meet the standards listed for his class.

*These activities should not be attempted below the 10th grade or in classes E and F.

Classification plan for secondary school boys¹

<i>Exponent</i>	<i>Age</i>	<i>Height</i>	<i>Weight</i>	<i>Exponent</i>	<i>Age</i>	<i>Height</i>	<i>Weight</i>
9.....			53- 59	21.....	11:9-12:2	49½-51½	147-153
10.....			60- 65	25.....	12:3-12:8	52-53½	154-159
11.....			66- 71	26.....	12:9-13:2	54-55½	160-165
12.....			72- 78	27.....	13:3-13:8	56-57½	166-171
13.....			79- 84	28.....	13:9-14:2	58-59½	172-178
14.....			85- 90	29.....	14:3-14:8	60-62	179-184
15.....			91- 96	30.....	14:9-15:2	62½-64	185-190
16.....			97-103	31.....	15:3-15:8	64½-66	191 up
17.....			104-109	32.....	15:9-16:2	66½-68	
18.....			110-115	33.....	16:3-16:8	68½-70½	
19.....			116-121	34.....	16:9-17:2	71-72½	
20.....			122-128	35.....	17:3-17:8	73-74½	
21.....			129-134	36.....	17:9-18:2	75 up	
22.....	10:9-11:2	47 down	135-140	37.....	18:3-18:8		
23.....	11:3-11:8	47½-49	141-146	38.....	18:9-19:2		

¹ Cozens, Frederick W.; Trieb, Martin H.; and Neilson, N. P. *Physical Education Achievement Scales for Boys in Secondary Schools*, New York, A. S. Barnes and Company, 1936. p. 13.

Grades 7 to 12, inclusive

For purposes of competition in inter-school athletics and in individual events—derived from the formula $2A \text{ (years)} + .475 H \text{ (inches)} + .16 W \text{ (lbs.)}$.

NOTE: Height is measured in half-inches. The boy must have attained the height listed before the exponent value changes. For example, he remains at 49 until he reaches 49½.

<i>Class</i>	<i>Exponent Value (Sum of exponents)</i>
F.....	69 and below
E.....	70-74
D.....	75-78
C.....	79-82
B.....	83-87
A.....	88 and over

Test I—Push-Ups

From standing position place hands on floor and extend legs backwards, feet together, back and arms straight with weight supported on hands and toes only. This is the starting position. Lower the body by flexing the arms until the chest nearly touches the floor. Then raise body to the starting position. This counts as one push up. The head, trunk, and legs should remain in a straight line throughout the movement. The dips shall be done without rest between and shall not count if any part of the body other than toes and hands touches the floor.

Test II—Pull Ups

Hang on a horizontal bar with arms and legs fully extended, grip of hands optional. From this position, flex the arms, keeping knees straight, until the

chin touches the bar; then lower the body to the original position. This is scored as one pull up.

Test III—Dip on Parallel Bars

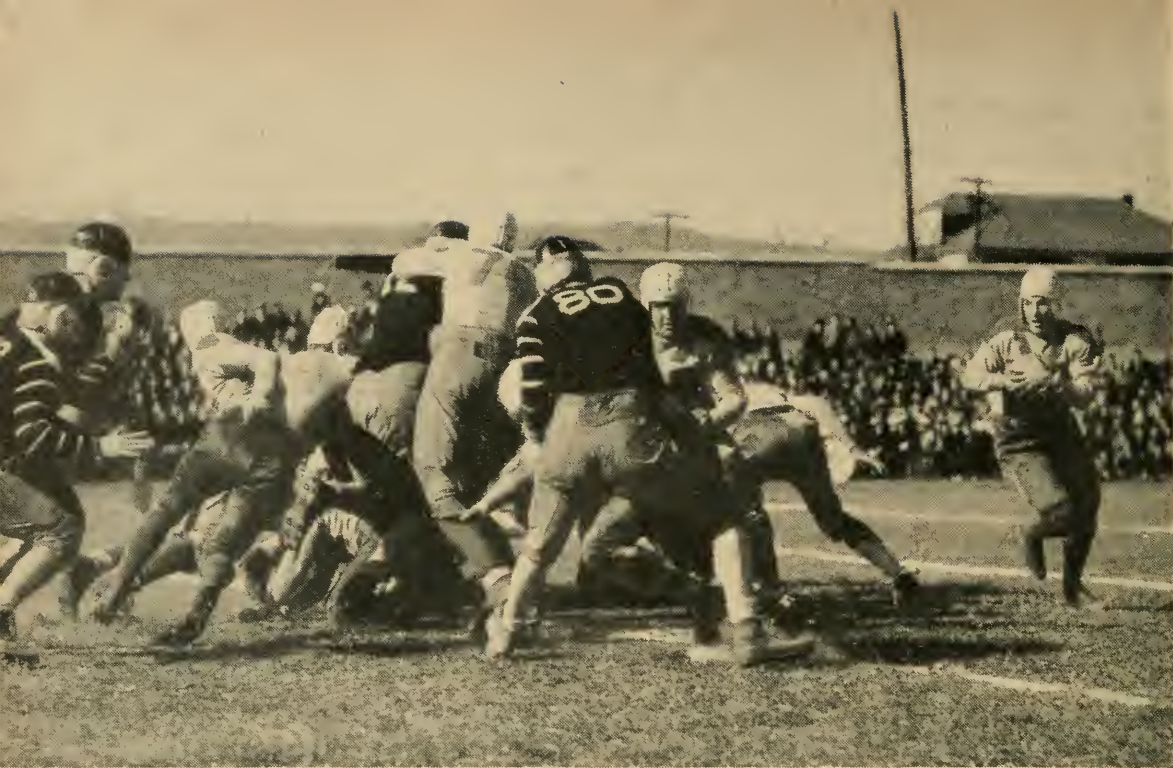
Adjust the parallel bars to the width of the pupil's chest and above shoulder height. Have pupil jump to a support position, arms straight. From this position flex arms lowering body until the arms are fully bent; then extend arms to original position. This constitutes one dip. The body should be kept in a slightly arched position throughout the exercise.

Test IV—Rope Climb (15 feet)

Pupil stands grasping a suspended rope 1½ inches to 2 inches in diameter. At the word "Go," pupil climbs rope in any manner. The time in seconds and in tenths of seconds elapsing between the starting signal and the time the pupil reaches the proper mark is the performance to be recorded. *Caution:* Pupils should be cautioned about returning to the floor. Unless care is exercised, burned hands or other injuries may result.

Test V—The Bar Vault

Pupil stands close to and facing the bar grasping same with both hands, knuckles up, shoulder-width apart. Without crow hopping and with combined spring from both feet and pull with both arms the body is vaulted to the side over the bar. Only the hands should touch the bar on an accepted performance. Bar may be raised as much as 3 inches at a



time until the abilities of pupils begin to be taxed; then amount should be reduced. The bar should not be over $1\frac{1}{2}$ inches in diameter and should be long enough so that the upright supports will not interfere with the legs of the vaulters. The maximum height over which a pupil can vault with only the hands touching the bar constitutes the record.

Test VI—Sit Ups (Army Method)

Lying with back on the floor, fingers of both hands interlaced behind the neck, feet held by another class member, the trunk is raised forward and moved downward, rotating so that the right elbow touches the left knee. Return body to starting position. Next raise trunk as before, excepting that the left elbow touches the right knee. Continue raising the trunk alternately touching left knee with right elbow and right knee with left elbow. Each completed exercise, i. e., touching right knee with left elbow and vice versa is one count. The observer, holding the subject's feet, counts aloud as the exercise progresses.

The exercise should proceed without appreciable rest periods between each erection of the trunk.

Test VII—Hanging Half Lever

From the high horizontal bar in the fully extended hang position, grip optional, the legs are raised to the front horizontal position. To secure a count of

accomplishment towards a score, the legs must be brought to a position, feet together, toes pointed at right angles to the body parallel with the floor. Once the subject begins the exercise, he should continue without resting between leg liftings until exhaustion prevents further counts.

Test VIII—Leg Lift

Pupil lies on back, arms at sides, palms pressing on the floor, legs extended completely, knees straight, toes pointed. Legs are raised through a 90-degree arc and then replaced on the floor. This is a completed exercise. Legs must be under muscular control at all times, that is, they are to be lowered to the floor under control, noiselessly, not suddenly dropped.

Test IX—Forward Bend

Starting position—Standing with feet together, body erect, hands together, arms extended overhead. The count of one is accomplished by lowering trunk and arms forward and downward until fingers touch the floor, and returning trunk and arms to starting position. Knees to be kept straight at all times.

Test X—Bank Twist

Pupil lies on back, arms extended sideward, palms of hands on floor, legs perpendicular position, knees

straight, toes pointed, as in Leg Lift. From this beginning position rotate legs, first left, then right, through 90-degree arc to the floor. An exercise is completed by lowering the legs sideward to the floor and returning them to the starting position. Shoulders should be kept on the floor and compensation for leg rotation made in the trunk.

Test XI—Potato Race

A cube of wood $1\frac{3}{8}$ inches on each side is placed in circle number 2 and another placed in circle number 3. Contestant standing behind the starting circle (number 1) runs to circle number 2, picks up the block, returns and places the block in circle number 1, runs to circle number 3, picks the block, returns and places it in circle number 1. Contestant then picks up the first block, returns it to circle number 2 and in the same way returns the second block to circle number 3, after which he returns to his starting point behind circle number 1. The elapsed time in seconds and tenths of seconds is the record for the contestant.

Cautions: Blocks must be carried one at a time.

Blocks must be placed and remain clearly in designated circles or the contestant must be stopped and permitted to repeat the test.

Test XII—Jump and Reach

Pupil stands facing the wall, toes against same, feet flat on the floor. With a short piece of chalk in his right hand, and with forearm and hand against wall, pupil reaches as high up as he can and makes a short horizontal chalk mark. Turning through a 90-degree angle with his right side to the wall, the pupil now jumps as high into the air as possible, at the same time reaching up and making a second horizontal chalk mark on the wall as high as possible above the first mark. The vertical distance to the nearest half inch between these two marks constitutes the record. The best of three trials is recorded.

Test XIII—Standing Broad Jump

Indoors: A take-off or beat board the same height above the floor as the upper surface of the mat upon which the pupil is to jump should be provided in order to prevent injuries. The pupil stands with toes even with the take-off mark or edge of the board. Free swinging of the hands and arms is permitted. The pupil then propels the body as far forward as possible with a two-footed take-off. The perpendicular distance from the take-off to the mark made on the

mat nearest the take-off by any portion of the pupil's body is measured. The distance in feet and inches to the nearest half inch is recorded.

Outdoors: The same procedure as indoors, excepting that the pupil jumps into a pit of well-spaded earth, shavings, or sand at the same level as the take off board.

Test XIV—Running Broad Jump

Indoors: Unless a suitable place is available, the running broad jump indoors should not be attempted. Suitable facilities consist of a place where the pupils can get a good run, not less than 50 feet, and have a safe place into which to jump. Jumping on mats on a gymnasium floor is seldom safe. If running broad jump is attempted indoors, it should be conducted under same general rules as for outdoor jumping.

Outdoors: A level space, free from obstacles, of at least 8 feet by 100 feet should be provided with a take-off board at least 8 inches wide and 4 feet long sunk flush with the ground surface and clearly marked. The pit into which the pupils jump should be 6 feet wide, 18 feet long, and 18 inches deep. Its nearest edge should be 6 feet from the take-off board. This pit must be filled with well-spaded loam, sand, or shavings and have its surface level with the take-off board. The contestant is allowed unlimited run, and jumps from one foot. The horizontal distance between the front edge of the take-off board and the nearest imprint made by any portion of the contestant's body in the pit is measured to the nearest inch and the record is made. In case any portion of the contestant's foot extends beyond the take-off board, the jump is not allowed.

Test XV—Running High Jump

Any style of jumping may be used providing the contestant takes off from one foot only. The standards should be at least 10 feet apart provided with standard pegs and cross bar. A contestant continues to jump until he displaces the bar twice at the same height. When this occurs, the last height jumped is taken as the pupil's record. Measurements of height are taken perpendicular to the ground from the top of the cross bar at the point of the greatest sag. This is recorded in feet and inches to the nearest inch. A good firm take-off area clear of all obstructions including loose sand or cinders should be provided. The pit into which the contestant jumps should be 8 feet wide and extend 1 foot beyond each standard. The pit must be filled with well-spaded loam, sand, or shavings.



Test XVI—100-Yard Dash
Test XVII—440-Yard Dash
Test XVIII—880-Yard Dash

The procedure in all running events is the same. A suitable course carefully measured and properly marked must be provided. The contestants are then lined up a yard behind the starting line. Each contestant may assume any position he desires on the starting line so long as no portion of his body extends beyond it. They are given the following commands at intervals of about 2 seconds:

Go to your marks

Get set

Either a pistol shot or command "Go" is given

Upon the starting signal, the contestants leave their marks. The record achieved is the time in minutes, seconds, and tenths of seconds it takes for the contestant to cover the entire course. To achieve a record a contestant must complete the entire course and cross the finish line without interfering or being aided by any other person or contestant.

Competitors may be permitted to run these events in groups to conserve time. With a single stop watch reasonably accurate records can be secured. When this is done the following markings on the track at the finish line should be provided:

An observer should be designated to watch each lane. At the time the first contestant crosses the finish line each observer records the position in the zone which the contestant in his lane has reached. By adding the following corrections to the time of the contestant who finished first the approximate time of the contestants finishing in the various zones can be secured.

Zone	100 yards	440 yards	880 yards
	<i>Seconds</i>	<i>Seconds</i>	<i>Seconds</i>
1.....	.2	.3	.3
2.....	.4	.5	.6
3.....	.6	.8	.9
4.....	.8	1.0	1.2
5.....	1.0	1.3	1.5

The use of the above table permits the timing of at least five contestants with one watch.

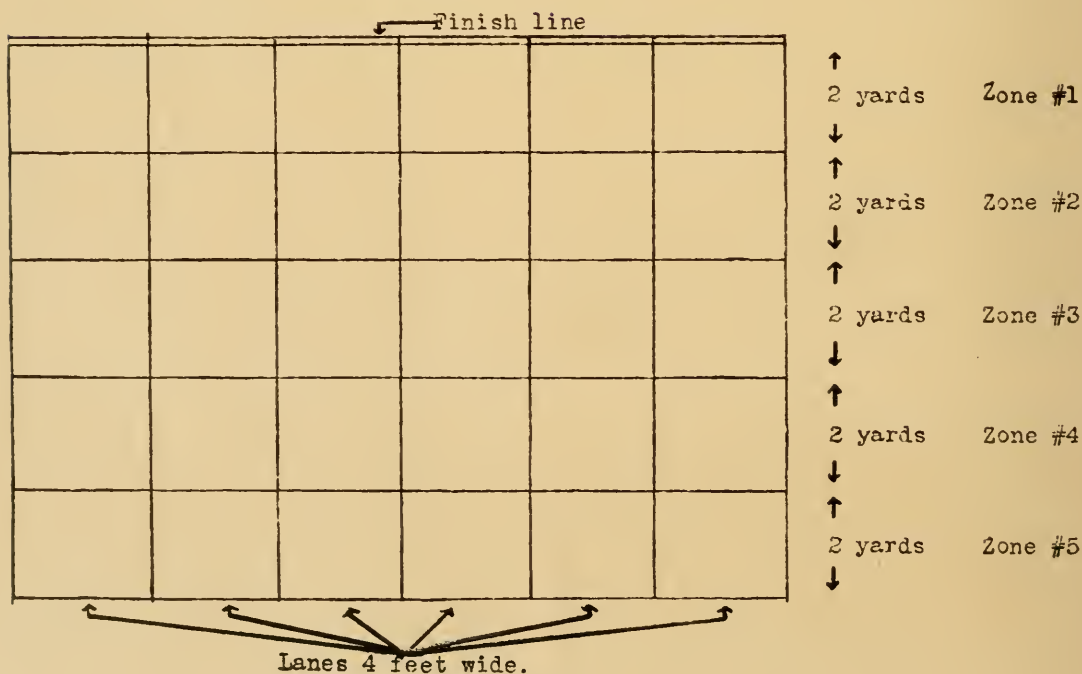


Table of standards for boys

Rating by class	I. Push-ups	II. Pull-ups	III. Dip parallel bars	IV. Rope climb 15'	IV. Rope climb 20'	V. Bar vault	VI, VII, VIII, IX, X, No standards available	XI. Potato race	XII. Jump and reach	XIII. Standing broad jump	XIV. Running broad jump	XV. Running high jump	XVI. 100-yard dash	XVII. 440-yard run	XVIII. No standards available
A	Superior...	44	21	21	3.3	6.6	6-6	20.9	22.5	9-8	20-9	5-6	10.7	54.7	.....
	Excellent..	35	17	16	4.7	8.9	5-11	22.8	20	8-11	18-8	5-1	11.4	59.6	.....
	Good.....	20	9	8	7.1	12.6	4-10	25.9	16	7-7½	15-1	4-6	12.5	67.7	.....
	Fair.....	13	5	4	11.2	16.4	3-10	29.1	12	6-4½	11-7	3-10	13.7	75.8	.....
	Poor.....	8	3	1	13.7	18.6	3-2	30.9	9.5	5-7	9-5	3-5	14.3	80.7	.....
B	Superior...	42	20	19	4.0	7.6	6-2	21.6	21.5	8-10½	19-5	5-4	10.9	56.5	.....
	Excellent..	33	16	14	5.5	9.9	5-7	23.5	19	8-2½	17-6	4-11	11.6	61.3	.....
	Good.....	18	8	7	8.2	13.8	4-7	26.6	15	7-0½	14-2	4-4	12.7	69.5	.....
	Fair.....	11	4	3	12.5	17.7	3-7	29.7	11	5-11	10-11	3-8	13.8	77.6	.....
	Poor.....	7	2	0	15.2	20.0	3-0	31.6	8.5	5-2½	8-11	3-3	14.5	82.5	.....
C	Superior...	40	19	16	4.5	8.4	5-8	22.3	21	8-4½	18-0	5-2	11.1	58.2	.....
	Excellent..	31	14	12	6.2	10.9	5-2	24.1	18.5	7-9	16-2	4-9	11.8	63.0	.....
	Good.....	16	7	5	9.1	14.9	4-4	27.3	14	6-8½	13-1	4-2	12.9	71.2	.....
	Fair.....	9	3	1	13.7	19.0	3-5	30.4	10	5-8	10-0	3-6	14.1	79.3	.....
	Poor.....	5	1	0	16.5	21.4	2-11	32.3	7.5	5-0½	8-2	3-2	14.7	84.2	.....
D	Superior...	39	17	14	5.0	8.9	5-5	22.8	20.5	8-2	16-10	5-0	11.5	60.3	.....
	Excellent..	30	13	10	6.9	11.4	4-11	24.7	18	7-6½	15-2	4-7	12.2	65.1	.....
	Good.....	15	6	3	10.0	15.6	4-1	27.8	13.5	6-6	12-4	4-0	13.3	73.3	.....
	Fair.....	8	2	0	14.9	19.8	3-3	30.9	9.5	5-5½	9-6	3-4	14.4	81.4	.....
	Poor.....	4	0	0	17.8	22.3	2-9	32.	7	4-10	7-10	3-0	15.1	86.3	.....
E	Superior...	38	16	.....	5.2	9.2	5-3	23.2	20	8-0½	16-0	4-10	11.9	62.4	.....
	Excellent..	29	12	.....	7.2	11.9	4-9	25.1	17.5	7-5	14-5	4-5	12.6	67.3	.....
	Good.....	14	5	.....	10.7	16.2	3-1	28.2	13	6-4½	11-9	3-10	13.7	75.4	.....
	Fair.....	7	1	.....	15.8	20.6	3-1	31.4	9	5-4	9-1	3-2	14.9	83.5	.....
	Poor.....	3	0	.....	18.9	23.2	2-7	33.2	6.5	4-8½	7-6	2-10	15.5	88.4	.....
F	Superior...	38	14	.....	5.4	9.8	5-0	23.5	19.5	7-11	15-3	4-8	12.5	64.5	.....
	Excellent..	29	10	.....	7.6	12.5	4-6	25.4	17	7-3½	13-9	4-3	13.2	69.4	.....
	Good.....	14	4	.....	11.3	17.0	3-8	28.5	12.5	6-3	11-3	3-8	14.3	77.5	.....
	Fair.....	7	0	.....	16.7	21.5	2-10	31.7	8.5	5-2½	8-9	3-0	15.5	85.7	.....
	Poor.....	3	0	.....	19.9	24.2	2-4	33.5	6	4-7	7-3	2-8	16.1	90.5	.....

Individual Records

To assist physical education instructors, a sample individual record card is printed here. It provides for three separate testings, one at the beginning of the school year, one in the middle, and one at the end. A comparison of the records, scores, and ratings for the three testings will indicate the progress being made.

By consulting the Classification Chart, the exponents for age, height, and weight may

be found. These are added and the "Class" recorded. The events (a decathlon) are listed on the card. Records, achievement scores found by consulting existing achievement scales, and ratings are recorded in the appropriate columns. There being no standards as yet for events 4, 5, and 6, scores have been entered arbitrarily in order to illustrate the total score of 699. With 10 events, place the decimal and one can read the average score of 69.9 which has considerable value in terms of total achievement.

Sample individual record card

Name _____				Date of birth <u>Aug. 15, 1927</u>			
School _____				City _____			

Test	1		2		3	
Record-Exponent	R	Exp.	R	Exp.	R	Exp.
Age	15-2	30				
Height	67	32				
Weight	143	23				
Sum of exponents	85					
Class	B					
Date of test	Oct. 1942		Feb. 1943		May 1943	

Events	Rec.	Score	r	Rec.	Score	r	Rec.	Score	r
1. Push-ups	14	36	F						
2. Pull-ups	9	52	G						
3. Bar vault	5-6	73	G						
4. Sit-ups		64							
5. Hanging half-lever		72							
6. Bank twist		84							
7. Potato race	22.2	85	E						
8. Standing broad jump	8-1	73	E						
9. 100-yard dash	11.2	82	E						
10. 440-yard run	60.4	78	E						
Total Score		699							
Average Score		69.9							

Table of standards for girls tests

<i>Rating</i>	<i>Jump and reach</i>	<i>Potato Race</i>	<i>Soccer throw-in</i>	<i>40-yard free style</i>	<i>20-yard free style</i>
Superior	18½'' or more	23.3 or less	48' or more	25.9 or less	11.5 or less
Excellent	18'' to 16½''	23.2 to 25.4	47' to 42'	26 to 31.2	11.6 to 13.9
Good	16'' to 9''	25.3 to 32.2	41' to 24'	31.3 to 47.9	14.0 to 21.6
Fair	8½'' to 7½''	32.1 to 34.0	23' to 19'	48 to 52.9	21.7 to 23.9
Poor	6½'' or less	34.1 or more	18' or less	53 or more	24 or more

Where achievement scales are not available they may be constructed according to accepted methods or the score column can be omitted from the card. The letters recorded in the column marked r (rating) refer to Fair, Good, and Excellent as found in the Chart on Standards.

Tests for Girls

There is a scarcity of authentic, scientific data available on tests for high-school girls. The standards published here represent the best available evidence of satisfactory performance. They may serve as guides to teachers and as incentives to pupils.

In the broad program of physical education, the attainment of standards is but one part. In this program of training for physical fitness, teachers should stress a continuous increase in intensity and duration of participation. As this procedure is followed, improvement in ability will be rapid and new standards will necessarily evolve.

Jump and Reach

Pupil stands facing the wall, toes against same, feet flat on the floor. With a short piece of chalk

in his right hand, and with forearm and hand against wall, pupil reaches as high up as he can and makes a short horizontal chalk mark. Turning through a 90-degree angle with his right side to the wall, the pupil now jumps as high into the air as possible, at the same time reaching up and making a second horizontal chalk mark on the wall as high as possible above the first mark. The vertical distance to the nearest half inch between these two marks constitutes the record. The best of three trials is recorded.

Potato Race

A cube of wood 1½ inches on each side is placed in circle number 2 and another placed in circle number 3. Contestant standing behind the starting circle (number 1), runs to circle number 2, picks up the block, returns and places the block in circle number 1, runs to circle number 3, picks up the block, returns and places it in circle number 1. Contestant then picks up the first block, returns it to circle number 2 and in the same way, returns the second block to circle number 3, after which he returns to his starting point behind circle number 1. The elapsed time in seconds and tenths of seconds is the record for the contestant.

Cautions: Blocks must be carried one at a time. Blocks must be placed and remain clearly in designated circles or the contestant must be stopped and permitted to repeat the test.

Soccer Throw In

Contestant stands with both feet behind a 2-foot starting line with one foot each side of the mid-point of the line.

Holding ball over head with both hands, contestant throws it as far as possible.

The straight line distance from the mid-point of

the starting line to the spot where the ball lands is measured and recorded.

Swimming—20 yds. and 40 yds. free style

(In bathing suits only)

Contestants swim the designated distance at the command, "Go." The time in seconds and tenths of seconds is recorded.

CHAPTER VII

Other Parts of the School Program Which Help in the Development of Physical Fitness

IT IS appropriate to include in this manual of physical education a brief statement concerning some other aspects of the school program which are generally agreed upon as essential for the maintenance of health and therefore for the building of physical fitness.

Control of Communicable Disease

Due to the depletion of available health workers, increased attention should be given to such acute, infectious diseases as scarlet fever, diphtheria, and smallpox as well as to the common cold, tuberculosis, malaria, hookworm, and other diseases.

School procedures important in the control of disease include:

1. Daily observation of pupils, by all teachers for signs of communicable disease.
2. Isolation and exclusion of pupils suspected of having a communicable disease.
3. Cooperation with departments of public health in the control of disease through immunization and other procedures.

Nutrition

In a program of physical fitness nutrition is a basic consideration. Boys and girls must understand the importance of food to health and at the same time realize that in time of war food supplies are uncertain and continuous readjustments have to be made in food practices. Students must be helped to plan for the best diets possible when food supply is limited.

A total school nutrition program will include:

1. Instruction in nutrition for all pupils planned by teachers of different school subjects such as agriculture, health, home economics, physical education, science and social studies working together so that each instructor makes his appropriate contribution to the total program.
2. An adequate mid-day meal for all pupils with provision for supplementary food for pupils who need it.
3. Use of the educational possibilities of the school lunch to give pupils the opportunities and help needed to develop better understandings of the relation of food to physical fitness.
4. Adult education so that parents and other adults will understand the program and close home-school cooperation will be possible.
5. Provision for coordinating all phases of the program.

Healthful Environment

A few illustrations of environmental conditions at school affecting health which need periodic checking are:

1. Proper lighting, heating, ventilating, and screening.
2. Provision of sanitary and adequate drinking, washing, and toilet facilities.
3. Proper adjustments and arrangements of desks and seats.
4. Safety provisions in building and equipment.

Health Guidance

Health guidance involves:

1. Continuous observation of students by teachers to detect changes in physical or mental conditions which may require attention. Whenever necessary, making recommendations for medical consultation.
2. Interviews with individual students and their parents regarding the student's health.
3. Health examinations.

4. Correction of defects.
5. Readjustments in the school and home program to meet health needs of students.
6. Cooperation with public health authorities and the medical profession in securing medical care of the needy.

The combined efforts of parents, school administrators, teachers, physicians, and nurses are necessary for the recognition of student health needs and for adequate assistance in the maintenance and improvement of health.

Health Teaching

There never was a time when students were more teachable in matters of health than at the present. Today they are particularly interested in problems connected with their own fitness for service in the armed forces

and war production. They also are concerned with school and community problems which they may help to solve in war service activities. These interests may form the basis for much worth-while health teaching.

Special teaching possibilities exist in such classes as agriculture, English, home economics, physical education, science, and social studies as well as in regular health classes or in homeroom and other school programs. The more closely this teaching is related to the daily life of the students, the more vital and effective it will become.

* * * * *

Details concerning these aspects of the program will be dealt with in subsequent publications of the U. S. Office of Education.

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- Decca Album No. 19. Old time dance music. 5 records. Includes waltzes, polkas, schottisches, Herr Schmidt. Played by Freddie "Schnickelfritz" Fisher and his orchestra.
- Decca 2561. Waltz quadrille. Played by Byron Wolfe's Orchestra.
- Victor 19909. Seaside polka and heel and toe polka. Played by Henry Ford's Old Time Dance Orchestra.
- Victor 19964. Money musk and medley of reels. Played by Henry Ford's Old Time Dance Orchestra. Medley of reels in good tempo for square dancing also.
- Vocalion 9229 La Raspa and La Varsoviana (fast tempo). Played by Orquesta Vocalion.

Testing

- BOVARD, JOHN F., and COZENS, FREDERICK W. *Tests and Measurements in Physical Education*. Philadelphia, W. B. Saunders Co., 1938.
- BRACE, DAVID KINGSLEY. *Measuring Motor Ability*. New York, A. S. Barnes and Co., 1927.
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——— *The Measurement of Athletic Power*. New York, A. S. Barnes and Co., 1932.

NEILSON, N. P., and COZENS, FREDERICK W. *Achievement Scales in Physical Education Activities*. New York, A. S. Barnes and Co., 1939.

PALMER, IRENE. *Tests and Measurements*. New York, A. S. Barnes and Co., 1932.

GLOSSARY

Dimension

The amplitude or size of a movement, e. g., a large circular sweep of the arm; a circular twist of the wrist. Dimension, direction, and level are the basic space factors of movement.

Direction

The line or course upon which one moves or to which one is pointing or looking, e. g., (1) walking forward, sideward, backward show simple direction of movement. (2) Looking sideward as one walks forward shows direction of gaze as well as movement.

Dynamics

The amount of force or stress used in a movement. A series of movements may be constant in dynamics and located at any point on a scale or it may be changing from very light to very strong.

Level

Altitude. Movement can be performed at various levels such as crawling on the floor, ordinary walking, and leaping. The boundaries of level may be extended by one person lifting another. Level, direction, and dimension comprise the basic factors of movement.

Meter

The division of a musical composition into measures according to a uniform grouping of rhythmical beats or time units. Also called *time*, 4/4, 3/4, 6/8. Music may change meter within a single composition according to any plan the composer devises, e. g., 3 measures of 3/4 meter followed by 1 measure of 4/4 time. Movement may follow this same principle.

Phrase

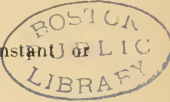
A short clause or portion of a musical composition embracing two or more measures terminated by a cadence and forming a separate group or idea. Technically a phrase is 4 measures in length but may vary greatly. Movement phrases also vary in length. Phrase lengths in movement should be established by the requirements of the movement and not be forced to coincide with the set phrases of the classic period of music.

Tempo

Rate of speed. The rate may be constant or gradually moving faster or slower.

Time

See *meter* above. Used synonymously with meter. Not to be confused with tempo. Teachers frequently ask accompanists "to play in a faster time" when they really mean tempo.



APPENDIX A

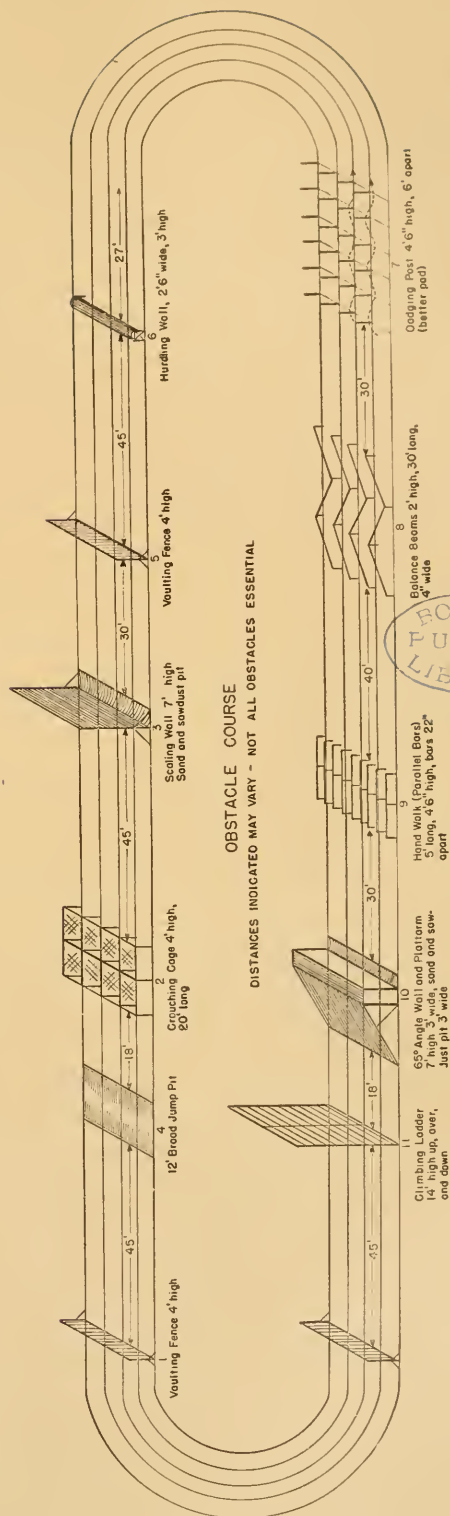
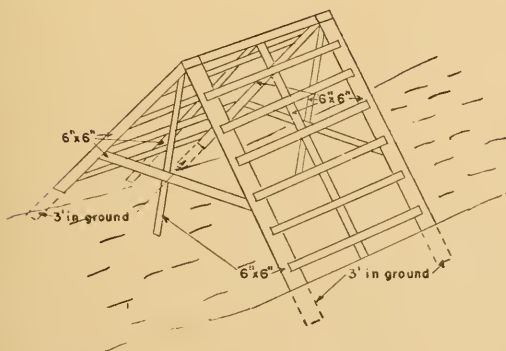
Military Obstacle Courses

LADDER Inverted "V"

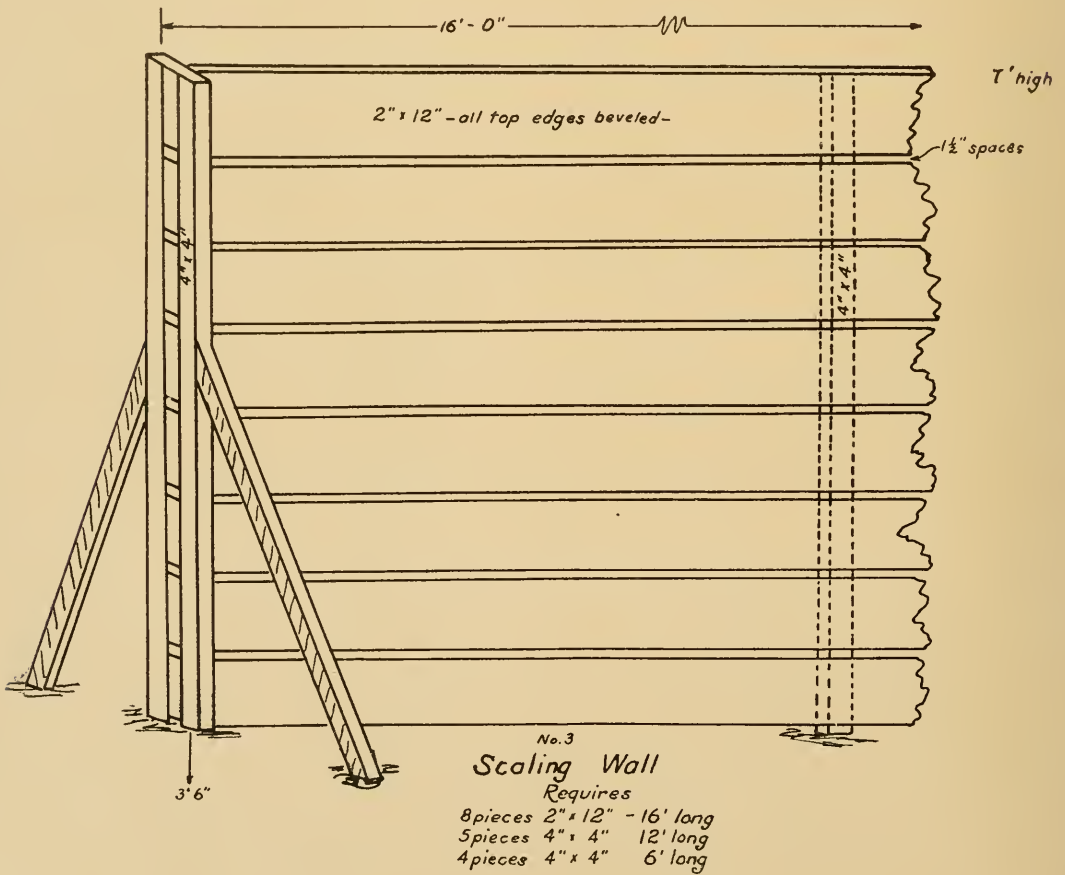
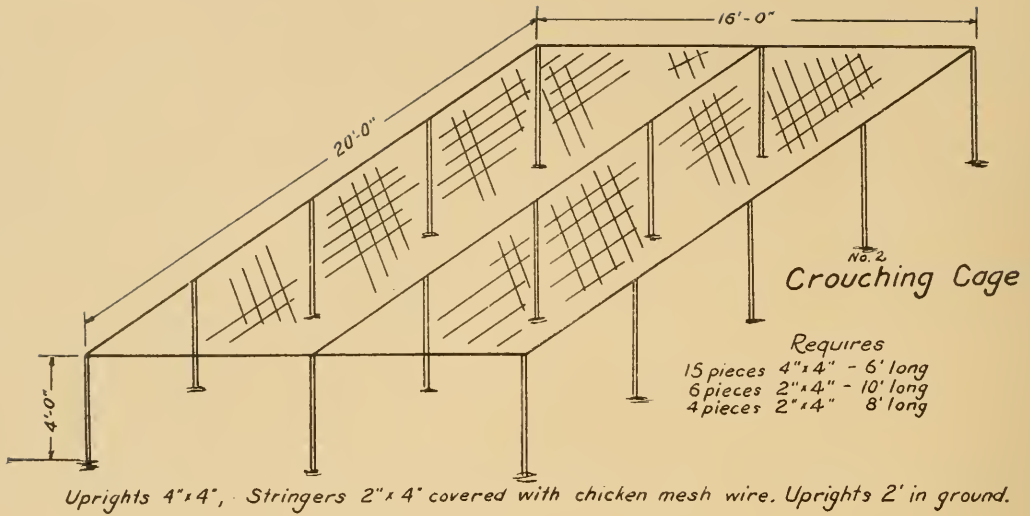
Width — 10 feet
Height at apex — 7 feet
Length of base — 14 feet

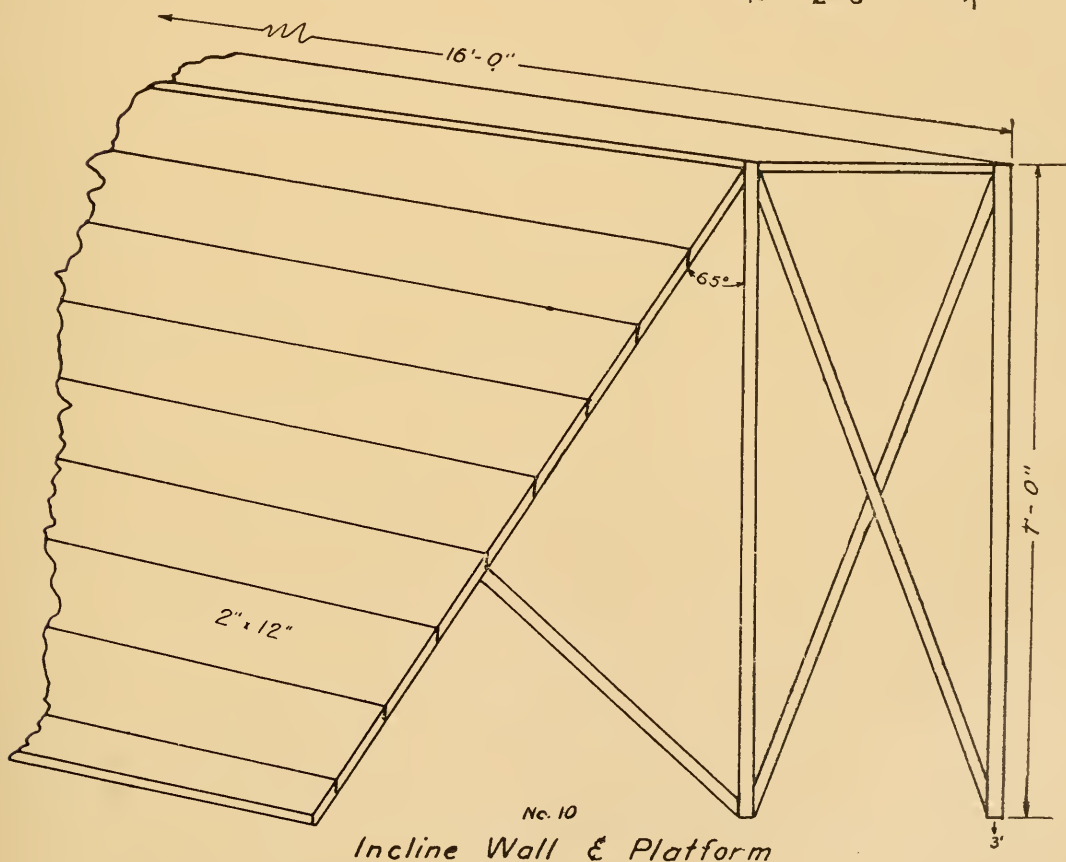
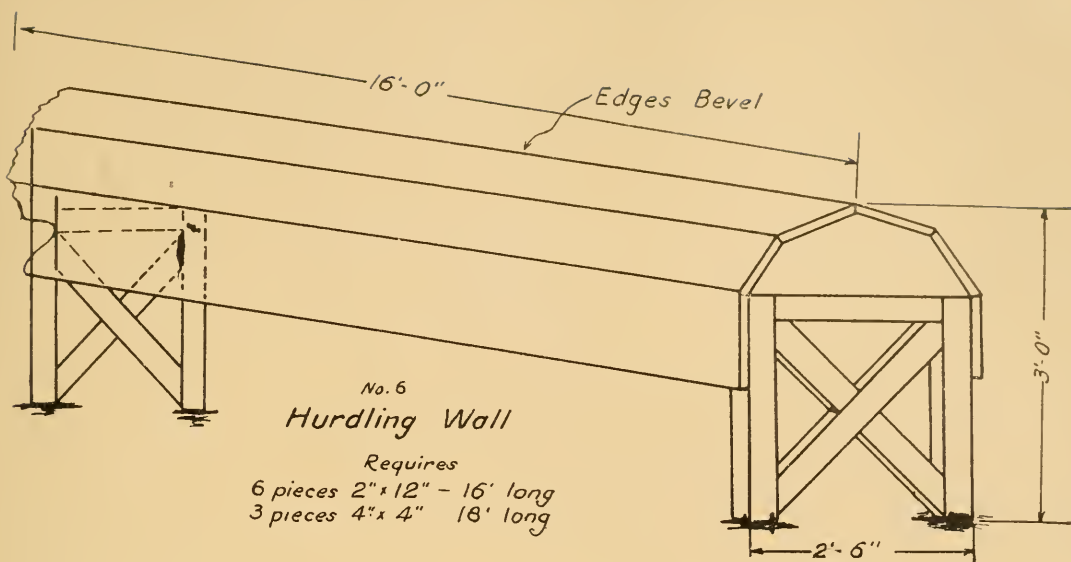
This obstacle has the shape of a roof with the apex approximately a right angle.

The rungs, made of 2"x4" pieces should be eighteen (18) to twenty-four (24) inches apart.

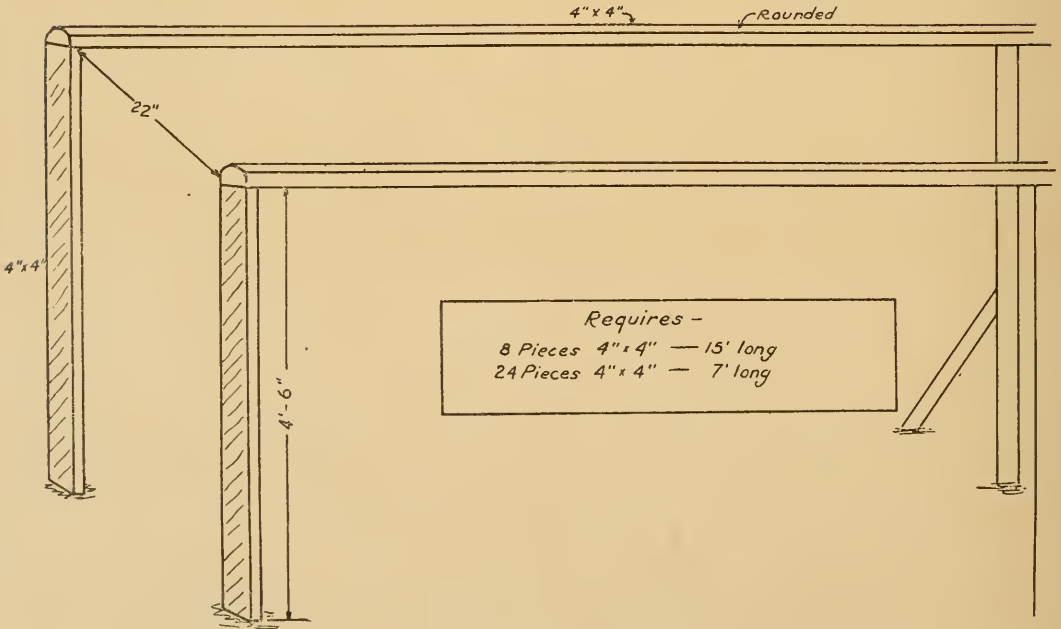
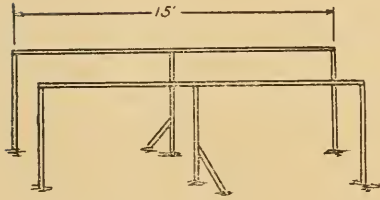
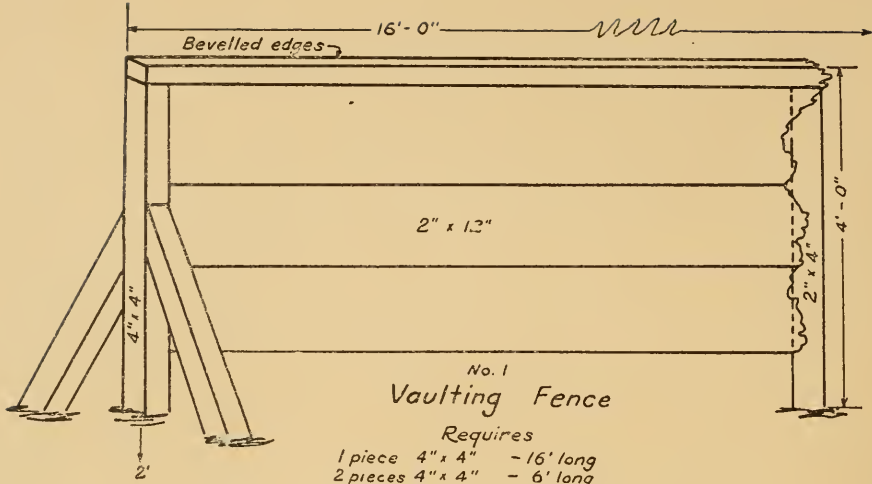


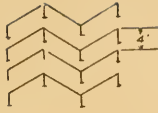
OBSTACLE COURSE
DISTANCES INDICATED MAY VARY - NOT ALL OBSTACLES ESSENTIAL





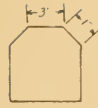
- Requires -
12 pieces - 2" x 12" - 16' long, 2 pieces 4" x 4" - 15' long
13 pieces 2" x 4" - 10' long, 4 pieces 4" x 4" - 12' long
6 pieces 4" x 4" - 8' long



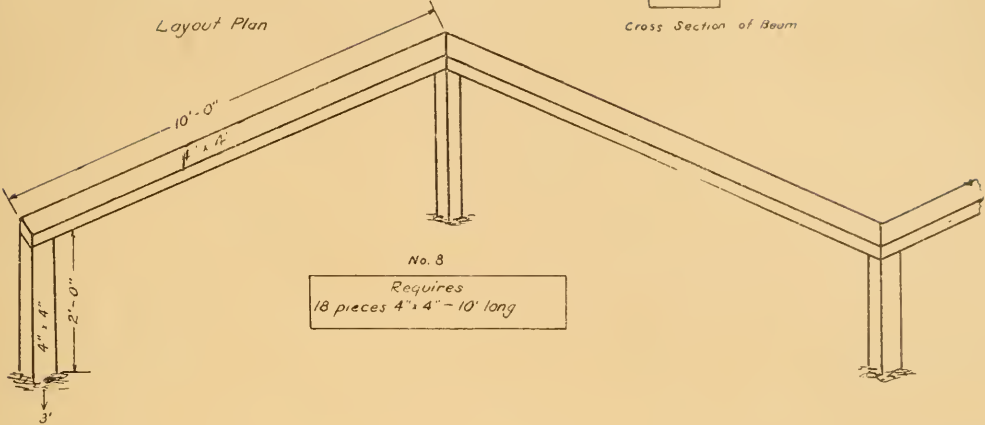


Layout Plan

Balance Beam



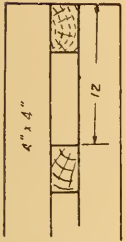
Cross Section of Beam



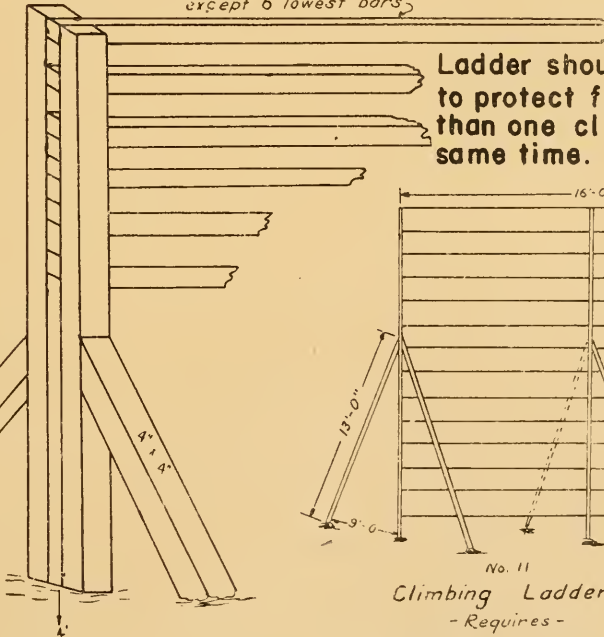
No. 8

Requires
18 pieces 4" x 4" - 10' long

All edges beveled
except 6 lowest bars



End View



No. 11

Climbing Ladder

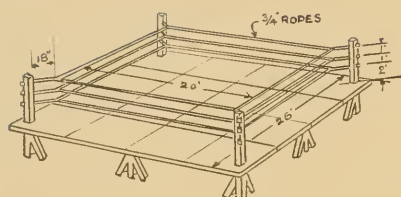
- Requires -

6 pcs 4" x 4" - 18' long
14 pcs 2" x 4" - 16' long
6 pcs 4" x 4" - 15' long

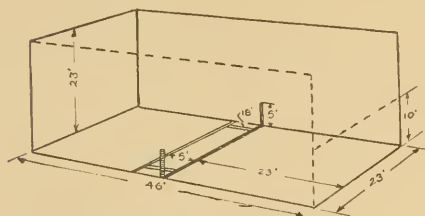


APPENDIX B

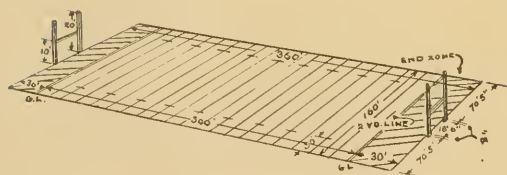
Plans for Athletic Fields and Courts



BOXING



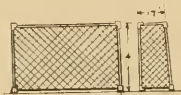
FOUR-WALL HANDBALL



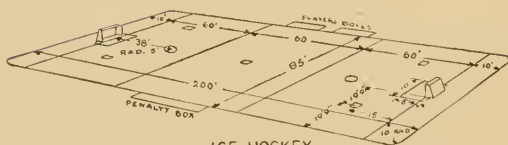
FOOTBALL



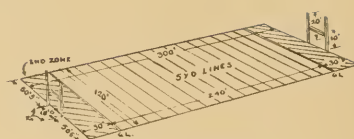
FIELD HOCKEY



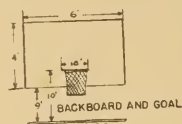
ICE HOCKEY GOAL



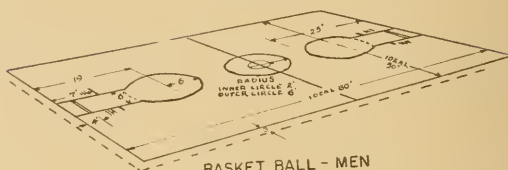
ICE HOCKEY



SIX-MAN FOOTBALL



BACKBOARD AND GOAL



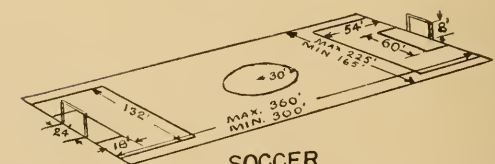
BASKET BALL - MEN



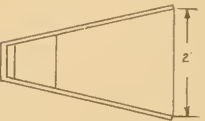
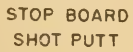
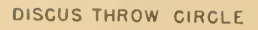
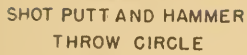
VOLLEY BALL



FIELD LACROSSE



SOCCER



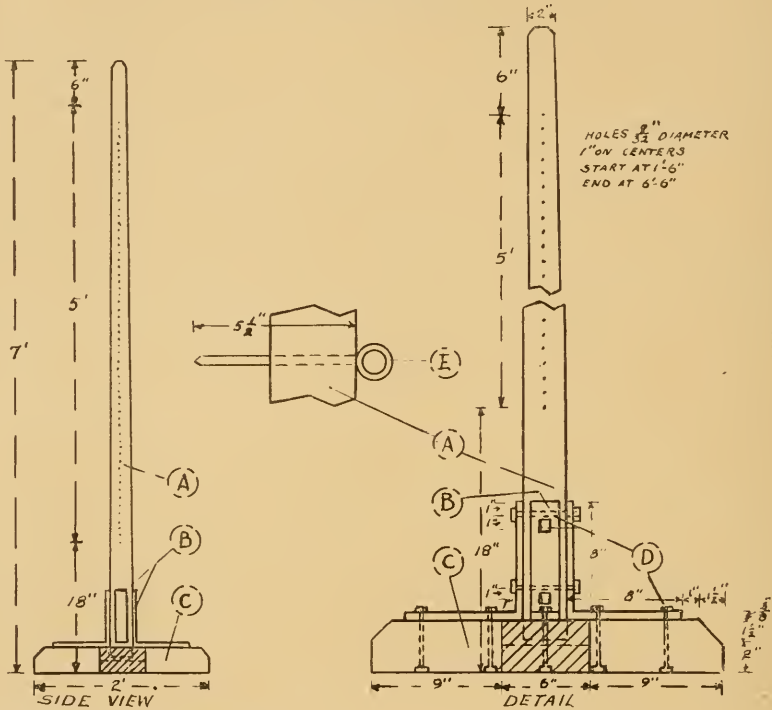
TAKE OFF BOX
POLE VAULT



APPENDIX C

Home-made Apparatus

JUMP STANDARD



MATERIALS REQUIRED

- A = UPRIGHT - 2-3"x3" TO 2'x2"x7'-ASH-DRILLED
 B = BRACES - 8- $\frac{3}{8}$ "x2"x8" ALUMES-IRON-DRILLED
 C = BASE - 4-3 $\frac{1}{2}$ "x6 $\frac{1}{2}$ "x2'-PINE-HALVED
 D = BOLTS - 32- $\frac{1}{4}$ "x4 $\frac{1}{2}$ " M.C.H.
 E = PINS - 2- $\frac{1}{4}$ "x5 $\frac{1}{2}$ " EYE BOLTS
 ALL LUMBER BEST GRADE D.A.S.

CONSTRUCTION NOTES

- EYE BOLTS SHOULD BE TEMPERED
 BASE BOARDS HALVED AND FIRMLY NAILED
 UPRIGHT TO BE PERFECTLY PLUMB
 USE CARE IN BORING HOLES IN UPRIGHTS
 BASE PAINTED TWO COATS; UPRIGHTS OILED
 PAINT NUMBERS FT. IN RED AND INCHES IN SLACK

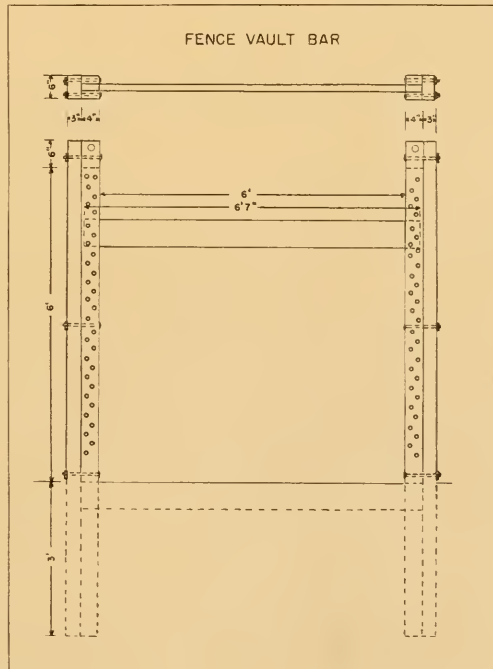
PREPARED BY PLAYGROUND AND RECREATION ASSOCIATION OF AMERICA (NOW NATIONAL RECREATION ASSOCIATION)

HORIZONTAL BAR

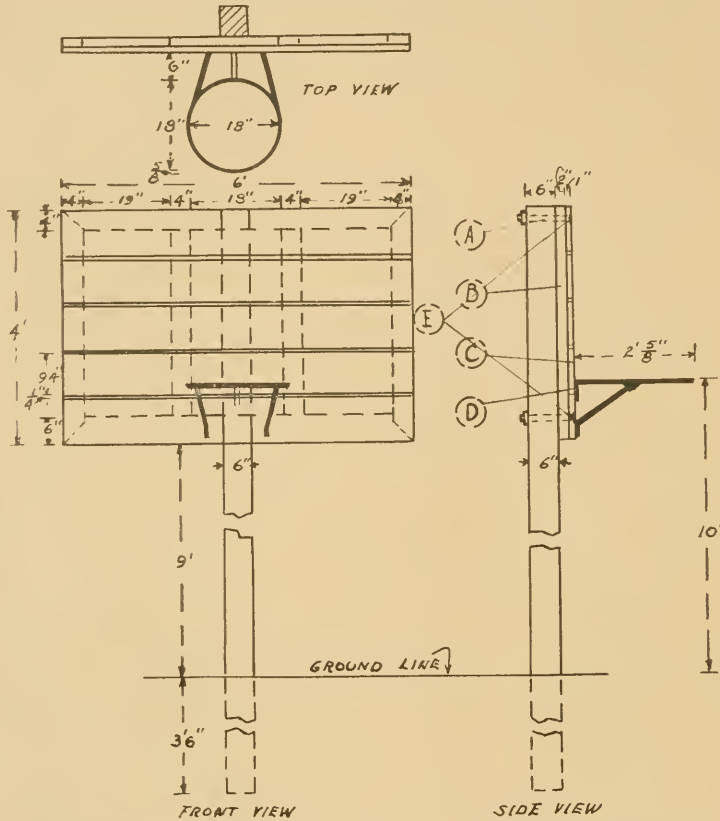
The drawing illustrates a mechanical assembly consisting of four vertical bars and a horizontal bar. The front view shows the bars with a total height of 7'6" and a base width of 2'9". The horizontal bar is 1 1/2" thick and is secured with lock washers. The side view shows the bars with a height of 6' and a base width of 18". The horizontal bar is 6" thick and has a 1/2" hole. The drawing is labeled "Front View" and "Side View".

Front View

Side View



BASKET BALL GOAL



MATERIALS REQUIRED

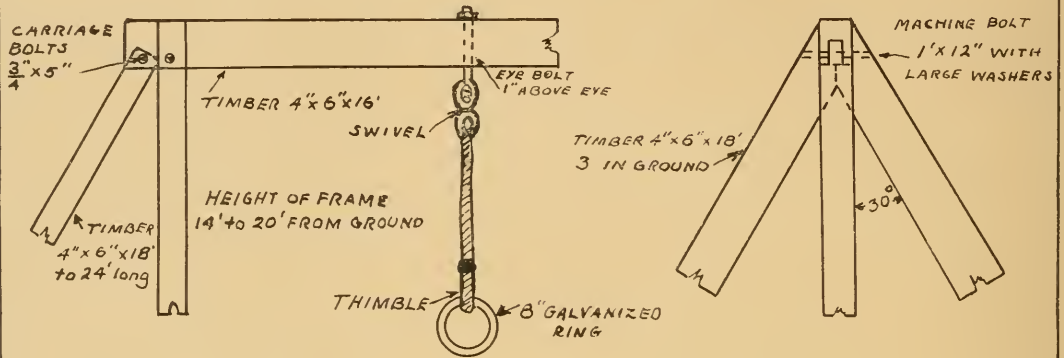
- A=POSTS-2-6"X6"X16'-6"
 B=FRAME BOARDS-2-2"X4"X6'
 4-2"X4"X4"
 4-2"X4"X3'-2"
 2-2"X6"X6'
 C=FACE BOARDS-10-1"X9'4"X6'
 D=GOAL RINGS-2-REGULATION
 E=FASTENER BOLTS-4-3"X9 1/2" M.C.H. COUNTER-SUNK
 LUMBER BEST GRADE PINE D.A.S.

CONSTRUCTION NOTES

- LUMBER ABOVE GROUND TWO COATS PAINT
 POSTS UNDER GROUND CROD SOTED
 OPEN JOINT BETWEEN FACE BOARDS 1/4"
 CORNERS AND EDGES SLIGHTLY BEVELED
 FACE BOARDS FASTENED WITH LARGE SCREWS
 RINGS FASTENED WITH 1/2" CARRIAGE BOLTS
 USE 1/4" IRON PLATES FOR WASHERS
 2 HEAVY LARGE WASHERS EACH FASTENER BOLT

PREPARED BY PLAYGROUND AND RECREATION ASSOCIATION OF AMERICA (NOW NATIONAL RECREATION ASSOCIATION)

FRAME FOR TRAVELING AND FLYING RINGS, CLIMBING AND SWINGING ROPE, CLIMBING POLE





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★ It is expected that additional copies of this pamphlet may be needed by many high schools. They may be secured from the Superintendent of Documents Washington, D. C.

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WASHINGTON

1942





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TEACHERS DEPARTMENT



PHYSICAL FITNESS through
HEALTH EDUCATION
for the **VICTORY CORP**

FEDERAL SECURITY AGENCY • U. S. OFFICE OF EDUCATION

VICTORY CORPS SERIES
PAMPHLET NUMBER 3

PHYSICAL FITNESS *through* HEALTH EDUCATION *for the Victory Corps*

*U.S. Office of Education - Commission on Physical
Education for high schools.*

Prepared by a committee appointed by the U. S. Commissioner of
Education with the collaboration of the U. S. Army, the U. S.
Navy, the U. S. Public Health Service, and the Children's Bureau

Federal Security Agency PAUL V. McNUTT, Administrator
U. S. OFFICE OF EDUCATION JOHN W. STUDEBAKER, Commissioner

U. S. SUPERINTENDENT OF DOCUMENTS

OCT 22 1943

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FOREWORD

POWER greater than the enemy's is needed to win this war and that means above all, manpower. Men to fly the planes, men to fire the guns, men and women to till the land and run the lathes—manpower virile and strong, freed of the shackles of ill health and injury is our need. To build that kind of manpower is a purpose to which this manual is dedicated.

Today a basic responsibility of secondary schools and of health and medical agencies is to "make the greatest number of pupils physically fit to carry on as members of the armed forces or as efficient workers." Sound health is a foundation for physical fitness. Six important factors which contribute to health have been selected as the general objectives of the program of physical fitness through health education outlined in this manual. They are: Correction of remediable defects, prevention and control of disease, better nutrition, prevention of accidents, efficient daily routines, and sound mental attitudes.

Every high-school student as preparation for service to his country has a responsibility to make all possible progress toward understanding and attaining these objectives. A student in training for or participating in wartime services has an added responsibility to take part in health studies and activities appropriate to the services of his choice.

The manual has been prepared to aid schools in the task of helping youth meet these objectives. It contains curriculum material for teachers and suggestions for administrative action required to implement a program of health education. *The manual is intended to be suggestive only and not prescriptive.*

It is designed as a helpful guide for teachers of health and as a source of ideas on health instruction which can be incorporated in courses of biology, physical education, home economics, agriculture, industrial training, social studies, and other subjects. School health committees may also find it to be a useful tool for isolating problems and for organizing to solve them.

Information is given regarding health problems which students are likely to face now or in the near future. While the specific facts or points of view are directed primarily to teachers, much of the informational material is suitable for use with students. Suggestions for action

are also presented which should provide incentive to students to take steps in identifying their own problems and working out solutions for them.

Properly balanced, this program will help to produce the sound and well-functioning bodies, the wholesome attitudes of mind, and good habits of living necessary to the development of physical strength and endurance and the specific knowledge and skills demanded of youth geared to win.

Grateful appreciation is extended to the following individuals who, in addition to the conference members, assisted in writing the manual: Dr. Walter J. Pelton, Past Assistant Dental Surgeon, Dental Consultant, U. S. Public Health Service; Eleanor W. Mumford, National Society for Prevention of Blindness; Dr. Josephine L. Rathbone, Associate Professor of Health and Physical Education, Teachers College, Columbia University. Valuable consultative services were given by Dr. Mayhew Derryberry, Chief of Field Activities in Health Education, Division of Sanitary Reports and Statistics, U. S. Public Health Service; Maj. John W. Middleton (MC), Training Division, Office of the Surgeon General, U. S. Army; Dr. Emory Morris, Chairman, Council on Dental Health, American Dental Association; M. Louise Strachan, Director of Child Health Education, National Tuberculosis Association; Vivian Weedon, Curriculum Consultant, National Safety Council; Capt. C. Raymond Wells, DC, U. S. N. R., Selective Service System, and Dr. Ira S. Wile, Associate in Pediatrics, Mount Sinai Hospital, New York. Dr. Ruth Strang, a committee member, rendered invaluable editorial assistance.

Acknowledgment is given for pictures received from the following sources: W. W. Kellogg Foundation, National Dental Hygiene Association, Office of War Information, War Department, Navy Department, U. S. Office of Education, and the public schools of the following localities: Baldwin, Long Island; Berkeley, Calif.; District of Columbia, and Norris, Tenn.

The Army, Navy, U. S. Public Health Service, the Children's Bureau of the U. S. Department of Labor, and staff members of the U. S. Office of Education have collaborated in the preparation of this manual and it has been approved by the National Policy Committee for the Victory Corps. The Committee consists of the following persons:

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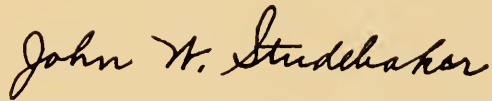
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WILLARD E. GIVENS, Executive Secretary, National Education Association.

Civilian Aviation

FRANK A. TICHENOR, Chairman of the Aeronautical Advisory Council, Department of Commerce, Publisher "Aero Digest."

Director—A. L. THRELKELD.

A handwritten signature in cursive script, reading "John W. Studebaker". The signature is written in dark ink and is positioned above the printed name and title.

U. S. Commissioner of Education.

The School's Responsibilities in a Wartime Health Education Program

A Summary

HIGH SCHOOLS today have become critical centers in the preparation of youth for military and civilian war services. Education for health improvement should be an essential part of this preparation. The fact that health of students is influenced by many forces both within school and out makes it important that health education responsibilities be shared by all members of the school staff as well as by parents, health departments, medical groups, and others in the community.

The major responsibilities of the school are summarized here. Subsequent chapters will contain an elaboration of the points with specific suggestions for carrying them out.

Helping Students Meet General Health Objectives

Six major health objectives form the basis for this wartime emergency program of physical fitness through health education. Every high-school student should take action on these objectives in line with his own needs. Assistance may be given to students in making progress through health courses or health instruction in connection with other school subjects and through appropriate school and community health activities. The steps which the school should take to aid the students are outlined below.

1. Correction of remediable defects. (See chapter I.)

To obtain correction of impairments, particularly dental and visual defects, the school, in cooperation with health agencies should:

- (a) Carry on extensive educational programs with students and parents, regarding the importance of corrections and means of securing them.
- (b) Discover and utilize community resources for securing corrections for youths whose families cannot provide necessary care. These would include medical and dental services and financial support.

2. Prevention and control of communicable diseases. (See chapter II.)

To prevent and control diseases most significant from the standpoint of high-school youth in wartime, the school should:

- (a) Educate students regarding known facts about the cause, spread,

prevention, and control of the common cold, tuberculosis, malaria, smallpox, venereal diseases, and other diseases as needs are indicated locally.

- (b) Participate with the health authorities in securing the completion of immunizations.
- (c) Encourage and expect students with a beginning or severe cold to remain at home and in bed as a means of preventing the spread of the common cold and the many communicable diseases which begin with similar symptoms.
- (d) Work out with the health authorities a program of tuberculosis case finding.
- (e) In malarious belts, work out plans with health authorities whereby students may assist in malaria control measures, including oiling and screening, as a community service.
- (f) Set up machinery for prompt detection and isolation of students coming to school with conditions which may be infectious.

3. Improvement in nutrition. (See chapter III.)

To help students improve personal nutritional status and assist with wartime projects, the school should:

- (a) Educate students regarding basic daily food requirements.
 - (b) Encourage students to take specific steps for the improvement of personal nutritional status according to individual needs. Problems peculiar to the high-school groups are skipping breakfasts, choosing lunches unwisely, and eating between meals.
 - (c) Make sure that the school lunch provides its share of the daily food requirement, and that each student gets an adequate noon meal.
 - (d) Give opportunity for students to help in wartime food conservation and in family and community feeding.
- ### 4. Prevention of accidents and training to assist in giving emergency care. (See chapter IV.)

The school should give attention not only to accident problems that are with us in peacetime, but also to those which are associated with specific wartime activities. To do this it should:

- (a) Provide planned instruction in accident prevention.
- (b) Provide (or arrange for) organized training in first aid for all high-school students who have not already had such instruction.
- (c) Provide instruction for all girls in home nursing or home care

of the sick and for as many boys as can arrange to take the instruction.

(d) Provide conditions throughout the school building and on the school grounds which are conducive to safety.

5. Daily program planning for balanced living. (See chapter V.)

To aid students in this, the school should:

(a) Help each student organize his time to provide for such a balanced program.

(b) Encourage the wise use of exercise and wholesome recreation through seeing that opportunities are provided within the school day for such activities.

(c) Provide time during the school day for rest and relaxation.

6. Development of sound mental attitudes. (See chapter VI.)

To help develop in students the right mental attitudes which are important for personal fitness and effective war effort, the school should:

(a) Provide counseling service for students which will help each to find his place in useful war service.

(b) Encourage students to participate in community war efforts so that they may have a sense of contributing actively. In classes, clubs, and auditorium programs help students achieve perspective so that they can take a realistic view of the present and find a basis for faith in the future.

(c) Provide guidance in mental hygiene so that students will have better understanding of their own reactions and those of others in times of stress, and may behave more intelligently.

(d) Provide situations in which students must make decisions and assume responsibilities as essential steps to growing up quickly.

Helping Students Meet Health Objectives for Special Wartime Services

Before going on to adult war work, in military, production, or community service, it is desirable that each student make progress in all six objectives outlined above. In addition, he should develop an understanding through experience or otherwise of some of the health problems associated with his chosen area of service as well as of ways to meet these problems.

The school may help students receive such preparation through direct health instruction, vocational training, or other organized training for the special services. In these fields the school's responsibility lies in these directions:

1. Air, land, and sea services. (See chapter VII.)

To give students special health preparation for military service, the school should:

- (a) Help each student who is training for military service, to learn where he stands in the light of Selective Service health requirements and assist him in correcting his deficiencies.
- (b) Give students preparing for military service instruction and as much experience as is possible in civilian life in the following aspects of military hygiene:
 - (1) Elementary knowledge of anatomy and physiology as an aid in avoidance of disease and injury.
 - (2) Knowledge of communicable diseases, and steps needed for the prevention and control of disease.
 - (3) Development of attitudes and skills needed to prevent accidents and to give emergency care.
 - (4) Mental and social adjustment to military life.
 - (5) Attention to other problems of military hygiene as cleanliness of body, clothing, and barracks; identification of poisonous plants, insects, and snakes; recreation; learning to live away from civilization.
 - (6) For students in training for air services, development of health practices essential for maintaining physical fitness needed to meet the stresses to which members of air crews are exposed under modern operating conditions.

2. Production services. (See chapter VIII.)

To prepare students to meet those special health problems associated with industrial and agricultural work, it is the school's responsibility:

- (a) As a part of industrial training, to help them develop sound health and safety attitudes and practices through instruction on hazards connected with hand tools, machine tools, electricity, flying particles, exposure to heat and glare, industrial poisons, noise, and on general health practices of the worker on the job.
- (b) As part of agricultural training, to help them develop sound health and safety attitudes and practices through instruction on such problems as: Farm sanitation; farm accidents; excessive heat; poisonous plants, snakes, and insects; and general health practices of the worker on the job.

3. Community services. (See chapter IX.)

To give health training to students in community services, the school should:

- (a) Help students become familiar with the health conditions related to the future services for which they are preparing.

- (b) Safeguard the health of students already engaged in community services through seeing that the work is carried on under hygienic conditions.
- (c) When the need is indicated, provide special health training for students participating in war-related community services.

Administration of the Health Education Program

A Plan for Administrative Action. (See chapter X.)

- (a) Fixing responsibility.
 - (1) In each school one person should be given the responsibility for coordinating all school health activities and for relating them to other health activities in the community. This individual should be given adequate time for these new and important duties and, if necessary, supplementary in-service training.
 - (2) A school health committee should be organized to plan cooperatively the development of the program, and to give support and advice to the individual selected to head the program.
- (b) Providing time and opportunity for health education.
 - (1) Time should be provided in the curriculum for all students to study health problems vital to them.
 - (2) Opportunities for instruction may be provided through direct health teaching, integrated courses, and health units in other courses of the curriculum. Special courses do not take the place of contributions to health instruction from other courses, nor can such contributions take the place of direct health teaching.
- (c) Finding health needs and problems and providing follow-up procedures. When possible, a medical examination should be provided for every student to:
 - (1) Check his fitness for participation in strenuous physical activity.
 - (2) Discover defects which need correcting.
 - (3) Find health problems requiring modification in the student's daily regimen of diet, rest, and mental adjustment.

In this part of the program the local health department staff should participate with the schools. In some communities it will be responsible for all phases of the health service program; in others, where the schools are responsible for examinations, the health department may be responsible only for seeing that medical care is made available to those students who need it and for control of communicable disease.

Teacher's study and observation of student's health is important as supplementary to, and in some instances, as substitution for the periodic medical examination. Procedures for the teacher should include (a) obtaining a health history; (b) observing student's appearance and reactions as in exercises; (c) giving special tests and taking special measurements as for vision, hearing, height, and weight.

School administrators and health committees should set up machinery for instruction of teachers on methods of observation and for the actual carrying out of observation procedures.

(d) Providing school environment conducive to health. It is the school's responsibility to:

- (1) Maintain safeguards in school shops.
- (2) Apply principles of health and safety in connection with activities and equipment for physical education.
- (3) Provide sanitary toilet, handwashing, and drinking facilities.
- (4) Provide adequate sanitary maintenance in face of depleted custodial personnel.
- (5) Provide adequate lighting and ventilating facilities.
- (6) Encourage and give students opportunity to take responsibility for sanitary and safety conditions in the school.
- (7) Provide a wholesome emotional atmosphere in the school.

(e) Training of personnel.

The best-qualified persons on each faculty from the standpoint of personality and health education training and experience should be selected for leadership in health education. However, every member of the faculty should make his contribution to health education commensurate with his responsibilities. Provision should be made to give inadequately trained teachers additional preparation, as through supervisory assistance, extension and summer courses, group meetings, and apprenticeship work in community projects.

(f) Community relations.

The school, homes, health, and medical agencies and other community groups should work together on measures for the improvement of health of all citizens, including the health of high-school students. The school should contribute its part in the total community program. It should in turn encourage and use the support of the board of education, health and medical leaders, organized groups and clubs, parents and other individuals in the development of the school's program.



In civilian life and in military services, an understanding of the body and how it functions is essential for the intelligent practice of good health, and for the avoidance of disease and injury. Every young person needs instruction in a few simple, basic facts in anatomy and physiology as a part of his total health training.

In chapter VII of the manual, suggested content of instruction in anatomy and physiology as applied to preparation for military services is outlined in some detail. A similar approach to the study of these fundamentals is desirable in relation to preparation for services other than military and for the immediate values to be gained in better everyday living. It is generally agreed that the more closely instruction in anatomy and physiology is tied to daily living problems the more effective it is likely to be.

Community members planning together for better school and community health.



Helping Students Meet General Health Objectives

Chapter I

Correction of Physical Impairments

PHYSICAL impairments or defects are hampering the most effective use of manpower in war services. About 25 percent of the 18- and 19-year-olds called up for induction are rejected, many because of physical defects. According to data collected from Selective Service and armed force induction stations (February 1943), the rate of rejections for whites alone in this age group is 23.3 percent, while for Negroes alone it is 45 percent. Educational deficiency and syphilis account to a large extent for the higher rate for Negroes. The whites, though with fewer illiterate than the Negroes, have a larger percent of rejections attributable to poor eyes and mental diseases.

Many of the defects among rejectees are of long standing and should have received attention in preschool and elementary years. Many are remediable and some might have been prevented by adequate care. The discovery and correction of remediable defects now existing among high-school students will be of lasting benefit to the individuals beside being a direct contribution to the war program.

Before Pearl Harbor, about 1,000,000 or 50 percent of the approximately 2,000,000 registrants examined were rejected as unqualified for general military service. Of the approximately 1,000,000 men who were rejected, 188,000 were disqualified because of teeth or mouth conditions, and 123,000 because of defective vision. Six months after Pearl Harbor, the Army was rejecting, because of dental defects, about 3 percent of the men called. In the spring of 1943, those rejected for this cause were scarcely 0.1 percent of the total.

This means that the Army is forced to take men whose dental condition is such that extensive and long-range treatment by Army dentists will be required. These men cannot be given advanced training until their conditions are remedied. A similar situation exists in connection with eye defects, which 6 months after Pearl Harbor accounted for 5 percent of rejections and in the spring of 1943 for only 3 percent. This defect must be considered in placing men in Army jobs and makes the task of assignment more difficult. The Navy, too, has reduced its physical requirements for induction of men through Selective Service so that now both Army and Navy medical facilities are often taxed through having to correct defects which might well have been attended to before induction.

In industry the problem is also serious. Production is slowed up through the consequences of uncorrected defects, and through time lost in having corrections made.

Defective teeth and vision have been selected for special emphasis in this chapter because of their high incidence.

Better Teeth

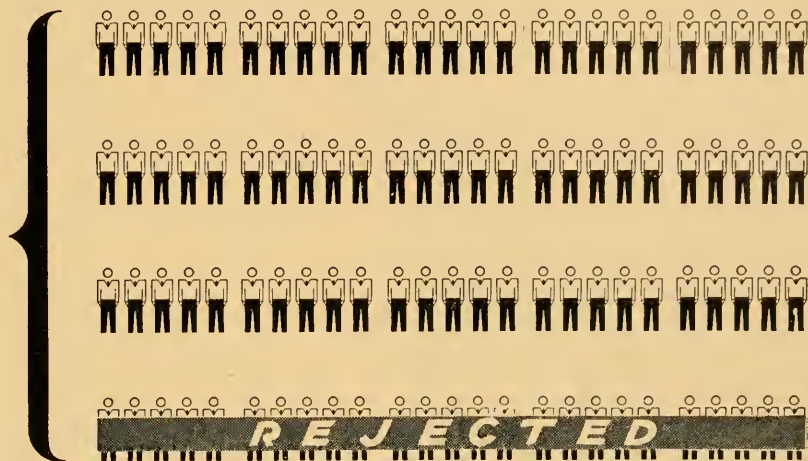
From the foregoing paragraphs it is evident that serviceable teeth are essential. They are essential for several reasons. If the necessary cutting and grinding teeth are missing, or if cavities and inflamed gums make chewing a painful process, food cannot be properly masticated. Improper mastication may result in digestive disturbances and poor utilization of food, both of which are handicaps. Clinically, the relation between infected teeth and poor health is generally recognized.

REJECTIONS AMONG 18 - 19 - YEAR - OLD REGISTRANTS

GENERAL MILITARY SERVICE

Each  represents one registrant

100
REGISTRANTS
EXAMINED



Based on a sample of 45,585 examinations February 1943 Selective Service System

Of course dental caries (decay) is not a problem peculiar to the high-school student. Even during the preschool age, dental caries is prevalent and a correction program is essential. The extent of damage to teeth caused by caries depends upon the promptness and thoroughness with which caries is treated. The early treatment of dental defects is less costly and causes less discomfort than later correction.

For these reasons the dental health program should include plans for the early and frequent discovery and correction of defects be-

ginning with early childhood and extending throughout life. Although the dental problem is being subjected to inquiry by scientific study both in the research laboratory and in the field, today there is no proven method for preventing the initiation of dental caries by mass control procedures. Periodic visits to the dentist for care and supervision are the most important known factors in preserving dental health.

A statement recently made by a military medical officer is all too true. He said that up to now practically all that has been done

regarding corrections is a "mere enunciation of defects." What we need now is action.

To get results, encouragement should be given to high-school students to take responsibility for working out with parents and health advisers plans for individual dental care. Steps in these plans include: (a) making an appointment with the dentist. Have dentist examine teeth, begin correction program, and arrange for completing necessary dental work. Also arrange for time of subsequent visits after work is completed; (b) following the dentist's advice relative to brushing the teeth or other procedures for home care; (c) eating a diet which is adequate for normal growth and development. This will contain material necessary for the health of the teeth.

Suggestions for Action

As a group, high-school students, with the assistance of teachers and school and health authorities, may reinforce the individual's good efforts and increase his understanding of the problem in various ways:

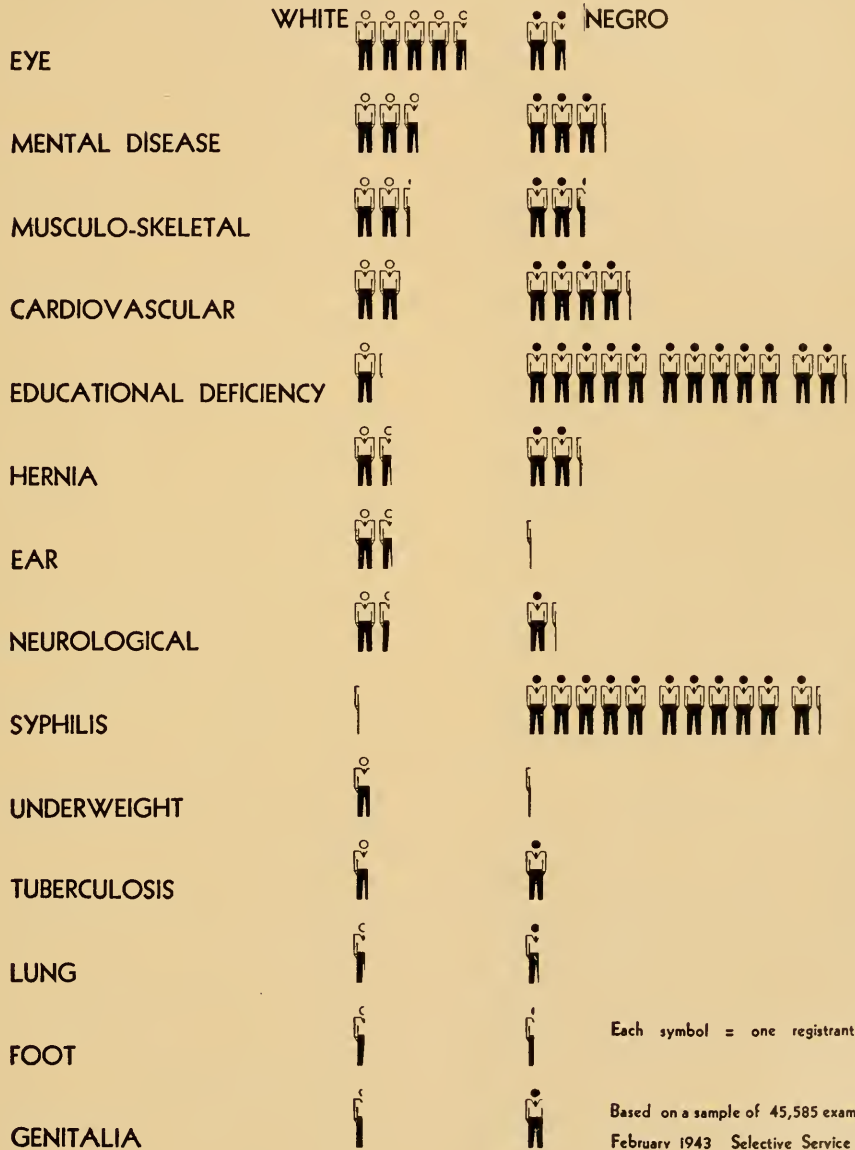
1. Arrange a schedule for getting necessary dental work done. In some areas it may be desirable to plan with the dentist for a block of appointments so that a number of students can arrange for group transportation to and from the dental office.
2. Plan publicity on the dental health needs of the group which will stimulate their interest in having corrections made as soon as possible and the interest of the public in making facilities for correction available to all students. Assemble authentic material on dental health in the library or classroom for student and teacher reference.
3. Work with the dental society, through the school superintendent, school health coordinator, and representatives of official health agencies on a program for the correction of defects for all students.

4. Find out the number of dentists in the community and the average number of people served by each. Compare these ratios with the standards of the American Dental Association of 1 dentist to approximately 1,900 people.¹ Compare prewar and war ratio of population per dentist in the student's own community.
5. Find out and compare the number of missing permanent teeth per 100 students by age, sex, and color. What does this indicate in regard to obtaining corrections?
6. Invite a representative of the State or local health agency to speak to the students on dental problems of high-school students, as he has observed them. Ask him to explain to the class old X-rays of teeth. Try to get some X-rays showing children's temporary teeth still in the mouth and their permanent teeth not yet erupted in the jaw.
7. Discuss the need for the sterilizing equipment, the X-ray machine, and other provisions for modern dental work in a well-equipped dentist's office or dental clinic.
8. Investigate any plans which are now in operation in different communities on a city, county, or State level or demonstration project area for dental care of all individuals.
9. Observe the teeth of younger brothers and sisters and as a group consider how teeth develop. Discuss the need for periodic supervision, beginning with the pre-school child.
10. As part of a course in biology or general science, make a collection of teeth of various kinds and study their structure. Study the biting and chewing surfaces, with emphasis on necessity of

¹ *Fitness for Freedom*. Survey Graphic, 31: 139-141; 165-168. March 1942.

MAJOR CAUSES OF REJECTION AMONG 18 - 19 - YEAR - OLD REGISTRANTS GENERAL MILITARY SERVICE

Number of rejections per 100 white registrants examined compared with rejections per 100 Negro registrants



proper occlusion. Study the form of roots and their relation to the jaws. Show where the nerves and blood vessels are located. Break or saw teeth in pieces to show enamel, dentine, and root canal. If teeth have cavities, study their size, position, and relation to blood and nerve supplies. Try the effect of dilute acids on teeth.

11. Discuss the possible advantages of sugar rationing in respect to the health of the teeth.

Better Eyes

In peace or war good sight is a great asset for useful service. Keen, clear vision is needed by the flier in our armed forces. Many precision jobs in industry require good vision for their successful performance.

The high-school student needs eyes functioning at their best. These eyes may have to carry a heavy visual load which, in addition to a large amount of reading may include such fine visual work as sewing and drafting. Moreover, the student may be looking forward to and taking training for a particular occupation, such as those just mentioned, in which certain types of visual ability are essential.

A high-school health program, therefore, should give attention to the care and protection of the eyes and appraisal of the visual ability of the student.² Emphasis here will be limited to the first objective.

Care and protection of eyes involves responsibility for (a) protection against infection, external or internal; (b) good nutrition; (c) protection from injury; (d) periodic eye examinations; and (e) proper use of the eyes.

Protection against external infection requires good personal practices in eye hygiene. External infections are brought to the eye on

hands, towels, in an eyecup or by any unclean object which comes in contact with the eyes. The all too frequent practice among high-school students of using towels which others have used is a common way to spread infection. With larger numbers of students in athletic programs and with crowded living conditions associated with war, such careless practices are likely to be aggravated unless special care is taken. Each student should review personal practices in eye hygiene and make an effort to eradicate those which are likely to result in infection.

Protection against internal infections occurring within the eyeball lies in the elimination of the basic cause, such as infected tonsils, tuberculosis, or syphilis.

Good nutrition is as essential to the eyes as to any part of the body. There are many kinds of tissue in the eyes, all of which must be adequately nourished. Deficiencies of nutrition may cause disturbances of vision or inflammatory conditions of the eyes and lids. (For suggestions on improving nutrition see chapter III.)

Protection from injury, a new challenge to many high-school students who for the first time are training for or participating in industrial production, depends upon safe practices and upon proper safeguards, correctly used. Goggles are essential for certain types of work, particularly in shops and laboratories. Teachers should give attention to the following protective measures: (a) selection of the goggles in relation to the type of hazard involved; (b) fitting of the goggles to the individual student;³ (c) arrangement for servicing goggles (repair, straightening, sterilization, etc.); (d) education of students in the need of conscientious use and proper care of the goggles; (e) compulsory regulations strictly enforced concerning the use of goggles during hazardous tasks.

² For background information on the eye, see the series of articles by John O. McReynolds begun in the May 1942 issue of *Hygeia* and continuing into 1943.

³ Where prescription lenses are necessary, they can be made in the form of hardened lenses for use in goggles.

Goggles are recommended for the following types of operations: “. . . grinding, snagging, chipping, pouring hot metal or acid, welding, sandblasting, or doing any other work where flying material might enter the eye. Interchange of goggles, masks, boots, or other personal protective equipment between persons, without first sterilizing, should not be permitted.”⁴ To this should be added the caution that goggles should be fitted to the individual wearer and selected in relation to the particular type of hazard.⁵ (See also chapter VIII, Health Requirements and Health and Safety Hazards in Industry.)

Eye examinations may include screening tests made by teachers or other lay people and examinations made by competent specialists. Teachers should help each student to: (a) cooperate with the schools in the preliminary testing of vision of all students; (b) plan with his family to secure the services of a competent eye specialist if further examination or treatment is indicated; (c) in cooperation with parents and school, find a way of having any necessary corrections made; (d) discuss any eye problem with his physician or the physician or nurse working in the school, and determine, if possible, the relation between his eye difficulty and his general health; (e) if a nutritional deficiency is suspected, review the diet with the home economics teacher or the nurse.

Proper use of the eyes includes consideration of such items as: (a) proper lighting; (b) correct posture; (c) correct angle of eyes in relation to work or reading materials; and (d) use of glasses when needed. In relation to each of these, students should review personal practices and attempt to improve those which need improvement.

⁴ National Safety Council. *Safety Training for Vocational Schools and School Shops*. Chicago, The Council, 20 North Wacker Drive, 1938, p. 40.

⁵ National Safety Council. *Goggles*. Chicago, The Council, 1940. (Safe Practices Pamphlet No. 14.)

It should not be assumed that students who have impaired vision cannot expect to find useful work. Those with seriously defective sight (20/70 or less in the better eye with the best correction) need adjustment of the educational program and guidance in selecting an occupation in which they can function efficiently without further damage to their sight or endangering their fellow workers through accidents. Even blind people are often employed in industry where in carefully chosen tasks they are as efficient as individuals with good eyesight.⁶

Suggestions for Action

Suggestions for steps which students may take with the aid of teachers to help conserve sight and to learn how to use their eyes with the greatest comfort, efficiency, and safety include:

1. Learn the visual standards for various occupations. A permanent card file can be developed on this as different students bring in reports on the occupations which interest them. These standards change, however, and will need to be brought up to date periodically.⁷ Each student should then ascertain and discuss with his counselor his visual fitness for particular occupations. For certain occupations visual fitness can be ascertained through the screening tests given in the

⁶ Information about education of students with defective sight can be obtained from the National Society for the Prevention of Blindness, 1790 Broadway, New York City. Your State Rehabilitation Bureau or the Handicapped Division of the U. S. Employment Service in your State should have information available on vocational guidance and rehabilitation. The American Foundation for the Blind, 15 West 16th Street, New York City, will advise regarding education, rehabilitation, and placement of the blind.

⁷ The local draft board will furnish information on the latest standards for the armed forces and the various specialized services within them. The U. S. Civil Service Commission will also have the standards for various civil service positions. Local industries can furnish reports on their standards. The physician or nurse working in the school can assist in obtaining and interpreting these data.

high school. For other occupations, a complete eye examination by a competent specialist will be needed.

2. Learn to understand the eyes as part of the body and as a refractive mechanism.⁸ The study should include the development of the eye in lower animals and in man, and the physics of light and the refractive power of the eye. Students interested in photography will find interesting comparisons between the eye and a camera.
3. Survey the school lighting in relation to recommended standards for the particular types of work carried on in the various rooms.⁹ Light meters for measuring light, if not available in the school, can often be borrowed from the health department or the local lighting company. Such a survey should be followed by active and cooperative effort to improve the lighting. Since new installations are practically out of the question at present, in view of shortages of critical materials, the best use of existing facilities by students and school staff becomes paramount. Among the points to be considered are:

(a) Are windows unobscured by dirt or draperies or decorations?

(b) Are lighting fixtures, walls, and ceilings clean, and are the latter light in color?

(c) Are shades properly installed and used to best advantage (two rolling from middle of window or one rolling from *bottom* of the window)?

⁸ Imus, Henry A. *Visual Efficiency*. Hygeia, 19; pp. 273-275; 382-384, April and May 1941.

⁹ *American Recommended Practices of School Lighting and American Recommended Practices of Industrial Lighting*. Illuminating Engineering Society, 51 Madison Avenue, New York City. See also State Department of Education in your State for its lighting code in schools and Industrial Hygiene Division for industrial code.

(d) Are desks placed at an angle so that light can come over shoulder opposite to the hand that is used (right shoulder for left-handed individuals, left shoulder for right-handed)?

(e) Do tops of desks tilt at various angles? If not, do students prop up work to get similar results?

4. Check up on individual practices in the use of the eyes at home, such as arrangement of light and posture for study, reading, or other close eye work.^{10 11} Also measure the amount of light which is used for home study.
5. Find out how many eye accidents have occurred at school; how they were caused; what first aid was given; what additional medical care was needed; how much school time was lost; what were the results, such as permanent injuries to the sight. The health service will probably have at least part of this information but it may need to be tabulated from the records of individual pupils. Consider how these accidents might have been prevented, and assist the school in the elimination of hazards.

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Eyes

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Chapter II

The Prevention and Control of Disease

THE CONTROL of communicable diseases, always important, becomes a matter of great concern in wartime. War creates the conditions conducive to the increase of disease. Movements of population and overcrowding in war production areas favor its spread. Physicians and nurses are taken into the armed forces, and there is likely to be a serious drain on hospital accommodations and supplies.

The desired outcomes of instruction on communicable diseases are knowledge of the ways in which diseases are transmitted and attitudes based upon this knowledge that will dispose young men and women to exercise suitable precautions as they engage in community or military life. Simple understandings unclouded with unnecessary terminology are needed. Students should not be required to know specific details about all of the common diseases.

Four specific diseases are discussed in the following pages. Three of them, the common cold, tuberculosis, and malaria have been selected for special consideration because, according to the U. S. Public Health Service, they are most significant in wartime from the standpoint of the high-school student. Small-pox has been selected because it is representative of communicable diseases which may recur at any time in epidemic form if protective measures are not enforced. An understanding of these diseases will give concreteness and reality to the cause, methods of spread, prevention, and control of diseases in general. Information on other communicable diseases likewise significant in wartime, such as syphilis and gonorrhea, typhus, and typhoid fever may be obtained in other publications.

The Common Cold

The common cold is the leading cause of absenteeism from school and work. In addition to incapacitating large numbers of people temporarily for war services, colds place increased demands upon already overburdened medical and nursing services.

People are likely to dismiss colds as being of little significance. A cold in itself is never fatal, but a cold prepares the ground for influenza or pneumonia. Repeated colds associated with enlarged adenoids may lead to deafness.

Sometimes what seems to be a cold is really some other condition. Early symptoms of such diseases as measles, scarlet fever, and diphtheria resemble a cold. Many of the allergies to pollens, dust, food, and other substances also resemble it. If a "cold" lasts over a week, one should find out whether he has some other condition.

To help prevent colds, each high-school student can assume certain responsibilities. He can follow hygienic habits of diet, rest, sleep, exercise, and recreation which help keep his body in the best physical condition. (Suggestions for carrying out a healthful regimen are contained in chapters III and V.)

If a cold develops, the student should remain at home, in bed, until the acute symptoms disappear. He is more likely not only to cure the cold quickly but also to avoid exposing others to his infection. By attacking a cold early, he may also save the physician a visit, a consideration not to be overlooked in wartime.

If a cold is severe, with acute symptoms of headache, chills, fever, aching joints, or if a more serious disease is suspected, the physi-

cian should be called at once so that proper treatment or quarantine measures may be applied. When colds recur at frequent intervals, or if there is pain in the ears, a physician's advice should be sought.

Suggestions for Action

Students and teacher should plan together a program for the reduction of the common cold. They may—

1. Determine and then practice the precautions one should use to protect others from one's own cold.
2. Carry on a school-wide educational program for the reduction of colds. Determine to what extent students' staying at home for one or two days when a cold starts results in an actual improvement in school absence records.
3. Locate the students who are frequently absent because of colds. Discover, if possible, the predisposing causes, as for example, late hours or other conditions contributing to fatigue; faulty nutrition or uncorrected focal infections. As a step in this procedure, students may make daily schedules for a week and discuss these with the medical adviser, school nurse, or teacher of health education. On the basis of the findings, each student should then attempt to organize his time for better health. (For a discussion of organizing time see chapter V.)

Tuberculosis

Much has been written about tuberculosis. Much also has been accomplished by an aroused public in its prevention and control. Encouraging, indeed, is the fact that this disease, which as late as 1912 led all other causes of death, has, during the past 30 years

dropped from first to seventh place. Tuberculosis, however, is still a danger to health as shown by the fact that approximately one out of every hundred draftees examined has been rejected because of tuberculosis. More young people die during the teen age and early twenties from tuberculosis than from any other disease. Hence, it is very important that the high-school student knows what to do about this disease.

During a war one may expect a rise in tuberculosis unless rigid efforts are made to control the disease. Factors favoring such a rise are war activities, increased work, overcrowding, and lack of readily available medical care. Since England entered the war, an increase in tuberculosis in that country is in evidence.

Suggestions for Action

The following experiences are appropriate for groups of students who desire to share in tuberculosis prevention and control measures.

1. Find out about tuberculosis and its control in the local community.
 - (a) Learn from health authorities the extent to which tuberculosis is prevalent in the local community.
 - (b) Select a committee to visit and report upon various voluntary and official organizations which carry on a tuberculosis control program. Find out what they are doing for prevention and control of tuberculosis in the community, such as tuberculin testing, X-raying, nursing, and clinic and sanatorium care of tuberculosis patients.
2. Make a survey of the class to learn how many members have ever had tuberculin

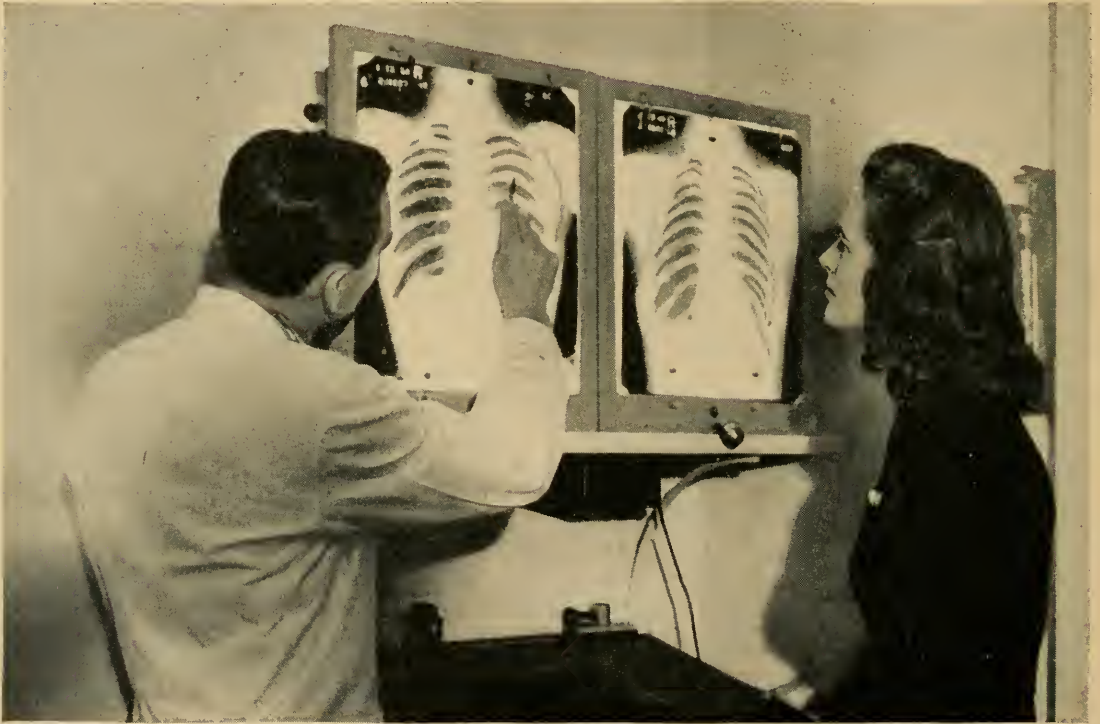
tests or X-rays. Discuss the significance of a positive tuberculin test.

3. Plan with members of the class, the school health committee, and public health authorities a program for discovering tuberculosis in high-school students. Investigate the use of microfilms as a means of securing inexpensive X-rays.
4. Gain a background of general information on tuberculosis as a basis for action.¹

person element in the spread of tuberculosis—that the only way to get tuberculosis is by the transmission of the tuberculosis germ.

- (b) Learn why tuberculosis is a difficult disease to conquer, and the means by which so much progress has already been made.
- (c) Discuss the findings of any of the studies which have been made of tuberculosis and, as in all diseases, the importance of early diagnosis.

Interpreting X-ray of the lungs.



- (a) Collect the facts necessary for an understanding of the cause, spread, detection, and treatment of tuberculosis. Be clear on the person-to-

5. Carry out publicity in the school to gain cooperation of the other students in a tuberculosis-control program.
6. Offer services to the local health department in their program of community

¹ For current information consult your local health department or write to the State or local tuberculosis association.

education on tuberculosis. Students may form public-speaking teams to promote some needed measure, as, for example, increased hospital or clinic facilities for tuberculosis patients.

7. Make a careful budget of time allowing for work, rest, activity, and recreation, and try to follow this schedule.
8. Report cases of people who have recovered from tuberculosis, have been re-educated to engage in the kinds of work they are physically able to do, and have lived useful, happy lives.

Malaria

Malaria is spread from man to man by the *Anopheles* (malaria) mosquito. It is most prevalent in the southern part of the United States and in tropical and subtropical zones of other countries where the *Anopheles* mosquito thrives.

Malaria incapacitates large numbers of people for effective war service. It causes illness which weakens people, making them incapable of doing an effective day's work. It also makes them more susceptible to other diseases.

Today malaria holds a position of major importance among communicable diseases. Many people are being exposed to the disease for the first time. War workers and their families from nonmalarious regions are moving to malarious sections of the South. Troops are in training or in combat service in regions where malaria is prevalent.

There is danger of a new widespread distribution of malaria to fresh areas. To illustrate—workers and men in the armed forces returning from malaria-infested areas by airplane or other rapid transportation may have contracted the infection, yet fail to show symptoms until after they reach home. If their destination is an area where the *Anopheles*

mosquito exists but in which malaria has not been previously recognized, they may be the cause of its spread to others. Another hazard is the unsuspected transportation of infected mosquitoes aboard long-distance planes. At the end of the journey these insects are fully capable of transmitting the disease in the regions to which they are carried.

The Army and Navy are applying scientific measures to protect their men in different parts of the world from malaria. The U. S. Public Health Service has a vast program of malaria control in malarious areas where large numbers of the general population are engaged in war activity. Control measures employed include (a) removal of mosquito-breeding places by draining and filling or rendering these places unfit for breeding; (b) spraying the surface of the water with oil or Paris green dust; (c) screening and mosquito proofing of homes and public buildings to protect people from the bite of the mosquito; (d) treatment with drugs; and (e) community education on malaria prevention and control.

Suggestions for Action

Steps which students who live in malarious regions can take to help in the prevention and control of this disease are:

1. Find out about malaria and its control in the local community.
 - (a) Secure information from the health department on the extent of malaria.
 - (b) If no cases of malaria occur in the community, try to find out whether the *Anopheles* mosquito is present.
 - (c) Learn what measures are being taken in the community to prevent and control malaria.
 - (d) Make a survey of homes, of public

buildings, which need to be screened or mosquito-proofed and of mosquito-breeding places which need to be destroyed.

2. Find opportunities to participate in community control measures. This may involve assistance in oiling, dusting with Paris green, draining, and mosquito-proofing projects.
3. Gain a background of general information on malaria as a basis for action.

- (c) Become familiar with the different kinds of places in which the *Anopheles* mosquito breeds. How do these differ from the breeding places of the common pest (*Culex*) mosquito?

4. Assist in a community-wide educational program on malaria prevention and control which is in accord with local needs. The following activities are typical of those which might be carried out:

- (a) Make and use for demonstration

Broadcasting facts on disease control.



- (a) Collect facts regarding the nature, cause, spread, detection, and treatment of the disease. Information can be secured through reading and consultation with health authorities.

- (b) Study the stages in the life history of the *Anopheles* mosquito.

purposes a spot map of the community which shows breeding places which should be destroyed and houses and other buildings in need of mosquito-proofing.

- (b) Demonstrate materials used in screening and mosquito-proofing.

(c) Arrange an exhibit to show what can be done for prevention and control.

5. As a summarizing activity in the study of malaria the students may write a manual that will include facts which every youth who joins the armed forces should know about malaria.

Smallpox

Smallpox occurs chiefly in scattered epidemics. Its distribution varies widely according to the degree of immunization of the population of an area and the exposure of the people to infection from without. Shifting populations increase the danger of smallpox in regions where few individuals have been protected by vaccination.

There is no need for anyone to have smallpox today. Regardless of regulations, every high-school student should have been vaccinated successfully for smallpox within the past 5 years. Revaccination every 5 years is essential to assure continual protection from this preventable disease.

Suggestions for Action

The following activities are illustrative of those in which groups of students may participate in connection with smallpox prevention and control:

1. Consult the local health department for information on smallpox in the community.
 - (a) Find out if there is a compulsory vaccination law in the State.
 - (b) Get data on the number of cases which have occurred in the community during the past 5 years.
 - (c) Secure information on the percentage of people in the community and

in the school who are protected by smallpox vaccination.

2. Work out a plan with the assistance of the local health authorities for the vaccination of those who need it.
3. As preparation for action, find out what is known about the spread, prevention, and control of smallpox, and assemble facts to show that smallpox can be wiped out. Enumerate the reasons why people do not consider vaccination important and why smallpox continues to exist.
4. Prepare publicity on the importance of vaccination to use in gaining support for this program in school, home, and community.

General Measures for the Prevention and Control of Communicable Diseases

In the preceding pages attention has been focused on specific communicable diseases. An understanding of the principles involved in the prevention and control of these diseases is excellent background for high-school students who must assume their share of responsibility in the control of all diseases. However, there are additional experiences which students may have which should add to their comprehension of the problems involved.

Suggestions for Action

To increase their understanding and to assist more actively in disease prevention and control measures, students may do some of the following:

1. Become familiar with the services of the local health department in communicable disease control.

2. Find out from the local health department those diseases for which immunizations are recommended as a means of prevention and control.
3. With the assistance of the school health committee and local health authorities, work out a plan so that everyone in school in need of immunizations may be protected.
4. Locate the infants and preschool children in the community who are in need of immunizations and work out a plan with the local health authorities to immunize these children.
5. Become familiar with and practice daily those personal habits required for preventing the spread of communicable disease organisms from one person to another.
6. Find out what is done in the school to help in the prevention and control of disease; work out plans for better student cooperation in these measures.
7. Learn what laws govern the control of disease in the State and local community. What effect do these laws have on the prevalence of specific diseases?

References

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Armstrong, D. B. *Colds Aren't Trivial*. Washington, D. C., National Education Association, 1201 Sixteenth Street, NW., 1942. 16 p. (Personal Growth Leaflet Number 106.) 25 for 25 cents.

Olesen, Robert. *Common Colds*. Washington, U. S. Government Printing Office, 1940. 8 p. (U. S. Public Health Service Supplement No. 135.) 5 cents.

Contains facts everyone should know about the common cold.

Tuberculosis

National Tuberculosis Association, in cooperation with the International Foundation for Visual Education. *Basic Facts in Picture Language*. New York, The Association, 1790 Broadway, 1939. 29 p. Free from local or State tuberculosis associations.

This colorful pamphlet presents tuberculosis facts clearly and dramatically in isotype.

——— *Keep 'Em Flying*. New York, The Association, 1790 Broadway, 1941. 15 p. Free from local or State tuberculosis associations.

Describes how tuberculosis can and must be prevented on the home front.

——— *Tuberculosis from Five to Twenty*. New York, The Association, 1790 Broadway, 1939. 17 p. Free from local or State tuberculosis associations.

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Carter, H. R. *Malaria*. Washington, U. S. Government Printing Office, 1936. 18 p. (U. S. Public Health Service Supplement No. 18.) 10 cents.

Contains questions and answers on malaria prevention and control.

*Tennessee Valley Authority. *A Guide to a Community Educational Program for Malaria Prevention and Control*. Chattanooga, Tenn., The Authority, 1941. 24 p.

Contains many suggestions for community and school activities including field observations, classroom experiments, exhibits, and plans for organizing to support control measures.

——— *Malaria and Its Control in the Tennessee Valley*. Chattanooga, Tenn., The Authority, Rev. 1942. 41 p.

Valuable source material for teachers and students on the prevention and control of malaria in general.

*——— *Malaria The Story of an Individual Problem and a Community Problem*. Chattanooga, Tenn., The Authority, 1941. 47 p.

A picture story on malaria and its control.

*Requests for single copies from health or educational agencies, health officers, individual teachers, or other individuals in the public health or educational field, will be met in all cases within the limits of available supplies.

Smallpox

Leake, J. P. *Questions and Answers on Smallpox and Vaccination*. Washington, U. S. Government Printing Office, 1939. (U. S. Public Health Service Reprint No. 1137.) 5 cents.

General

U. S. Public Health Service. *The Control of Communicable Diseases*. Report of Committee on Research and Standards. Washington, U. S. Govern-

ment Printing Office, 1941. (U. S. Public Health Service, Reprint No. 1697.) 10 cents.

The teacher will find this a convenient reference manual on communicable disease.

Stimson, A. M. *Communicable Diseases*. Washington, U. S. Government Printing Office, 1939. 111 p. (U. S. Public Health Service, Misc. Publication No. 30.) 25 cents.

A source book of information on the nature, prevention, and control of forty diseases.

Hammock and mosquito netting in the jungle—a knowledge of malaria and how it spreads will increase willingness of soldiers to sleep like this.



Chapter III

Better Nutrition

FOOD is "a weapon of war" contributing to the maximum efficiency and personal well-being of everyone—in industry, on the home front, and in the armed forces. Exertions accompanying greater physical activity, harder work, longer hours, and new and different activities must be taken in stride. Without good nutrition this is impossible.

The importance of good nutrition is recognized by those responsible for feeding the United States armed forces—the best fed of any in history. According to authorities¹ they are "better fed than 60 percent of our civilian population . . . Many men are better fed than they ever were before." It has also been pointed out that during the first months of training some men gain from 3 to 16 pounds, while others whose weight is already normal or excessive may maintain or lose weight. Thus through a combination of proper feeding, exercise, and rest each man tends to approach the weight which is best for him.

It is equally important that scientific knowledge of nutrition be applied in homes, industries, and the schools. High-school students can be helped to contribute to their own health and efficiency, to that of their families, and to that of the community through being given opportunity to participate in a broad nutrition program. Three ways in which they can participate will be discussed at some length in this chapter. They are:

1. Improve personal nutritional status by following day by day the practices leading to good nutrition.

2. Cooperate in the national and home-food conservation program in order that there may be sufficient nourishing food for the armed forces, the civilians, and the United Nations.
3. Assist with wartime nutrition programs, such as group feeding or school lunches.

Improvement in Nutritional Status

Today, millions of Americans have diets that are lacking in some of the necessary food factors. According to a survey made by the Bureau of Home Economics, U. S. Department of Agriculture,² more than a third of the families had poor diets, while only about a fourth had diets classed as good. Although poor diets were found oftener among families with lower incomes and in villages rather than on farms, diets of families in all income levels and in all parts of the country were in need of improvement.

There are many factors which adversely affect nutritional status. Faulty diet due to a variety of reasons such as indifference, lack of knowledge, poor food selection, and low family incomes are only a few. Illness and certain physical impairments are among others. One may also list poor hygiene, including the failure to plan a balanced daily program which allows sufficient time for sleep, rest, and exercise, three regular meals, school work, and war work. Too little sleep, for example, may result in chronic fatigue which is reflected in loss of appetite.

¹ Office of Defense Health and Welfare Services. *Nutrition Briefs*. Washington, D. C., Office of Defense Health and Welfare Services, 1942. p. 9. Free.

² U. S. Department of Agriculture, Bureau of Home Economics. *Are We Well Fed?* Washington, U. S. Government Printing Office, 1941. 28 p. 15 cents.

The following problems in respect to the improvement of nutritional status require particular attention among high-school students.

Food dislikes.—Many young people, although provided with foods that will give them an adequate diet, do not eat certain of these foods. This fact, long known by most parents and teachers, has been pointed out by those in charge of feeding the armed forces. Students during high-school years should make special efforts to learn to like a wide variety of foods. Those who later enter the services or whose work takes them away from home will then be able to look upon new and different foods with greater favor.

Food dislikes can often be avoided or overcome if foods are properly cooked and are served attractively. A less well-liked food is better accepted if served in small amounts and combined in a meal with well-liked foods.

Skipping breakfasts.—Many high-school students neglect to eat an adequate breakfast. Young people at this age need a large breakfast, for this is a period of rapid growth when food requirements are high and when nutritious meals should be eaten with regularity. Participation in intensified wartime programs in physical education and work, with a resultant increase in physical activity, makes it more important than ever that large, nutritious breakfasts be eaten.

Obviously, students should avoid skipping breakfasts or hurrying through the meal with the result that not enough is eaten. They may learn what good breakfasts mean from men in the armed forces who need a big breakfast for their strenuous forenoon of training. Breakfast in the Army is a large meal. It includes fruit, either raw or cooked; eggs or meat and sometimes both; hot or cold cereal; bread, either whole-grain or enriched; butter and milk.

During high-school years there is need for training students how to select adequate

breakfasts after they leave home and are on their own. The school can help students meet this problem, which many are soon to face, by giving them experience in planning economical and nutritious breakfasts which can be prepared with a minimum of time and with few cooking facilities. The school can also help students to learn how to select an adequate, low-cost breakfast at a restaurant.

Choosing lunches.—Whether the noon meal is selected in the school lunchroom, bought in a nearby store or restaurant, eaten at home, or packed at home to eat at school, it should supply approximately a third of the individual's daily food requirement. In actual practice among high-school students, lunches often fall short of this.

The lunch itself should be well prepared, interesting, and palatable. A suggested plan for a high-school student's lunch is:

- A main dish containing meat, fish, cheese, eggs, or sometimes beans, peas, or nuts.
- One or more vegetables and fruits.
- Whole-grain or enriched bread with butter or fortified margarine.
- One cup (one-half pint) pasteurized milk or this amount in soups, custards, or other dishes made with milk.

It may be pointed out that the armed forces stop for a hot meal at noon except when in actual combat. Even then, when conditions permit, a hot nutritious meal is served.

The packed lunch will be eagerly anticipated if it is selected and packed with the same attention that is given to a meal to be eaten at home. Sandwiches with a variety of fillings, including eggs, meat, and cheese can be made of whole-grain bread or bread enriched with minerals and vitamins. Many vegetables, such as carrots, celery, green peppers, turnips, and cabbage, and most fruits are easy to pack, attractive, palatable, and high in food values. Cold milk can be carried in a thermos bottle.

If students bring a packed lunch they should be encouraged to supplement it as needed with milk, vegetables, and other protective foods instead of spending their money, as they often do, on the "penny snatchers."

Eating between meals.—Most boys and girls can get sufficient food through eating three regular meals. In some instances students who are growing rapidly, or who are engaged in strenuous physical activity, may need additional food after school or during school at midsessions.

If food is eaten between meals it should be taken several hours prior to the next meal so as not to interfere with the appetite for that meal. The midmorning or midafternoon lunch should be considered as part of the total diet, with preference given to the foods which help in meeting the daily requirements such as milk, fruit, or whole-grain and enriched bread and butter. Although concentrated sweet foods and drinks contribute to the energy needs of the individual, they should be eaten sparingly so as not to replace or lessen the appetite for the protective foods which supply the body with needed proteins, vitamins, and minerals.

Securing all necessary food elements.—

It is important in this national emergency for every American to secure sufficient amounts of the foods which contain the food elements essential for good nutrition. When the essentials are not supplied, the body is poorly nourished and the condition known as malnutrition may result. The ill effects of malnutrition are not immediately apparent; this makes the condition difficult for many to understand and appreciate. Numerous mild cases of "deficiency diseases"³ that reduce materially the efficiency of the manpower of the Nation exist today in all economic groups

and in all parts of the country. Deficiency diseases in severe form still occur.

Nutritional deficiencies can usually be prevented by eating a diet adequate in the protective foods such as those listed at the end of this chapter. A knowledge of food values is essential today when individuals are faced with the problem of selecting alternate foods for those which are restricted in use.

Suggestions for Action

Through a school organization that provides for the teaching of nutrition to all, students may gain the understandings which should lead to practices resulting in better nutrition. The following are merely suggestive:

1. Design a meal record card which may be used by an individual in a class group in appraising his eating habits. Compare dairy diets with the standards set up in "A Daily Food Guide" at the end of this chapter. Plan changes that are needed to insure a better dietary. Work out ways to incorporate these practices in daily living.
2. Plan and prepare nutrition exhibits for the school, a store window, or other community center which interpret the newer knowledge of nutrition. An exhibit should be simple and should answer only one question such as: Why should we use whole-grain products, restored cereals, and enriched breads? What is an adequate day's diet at low cost? With restrictions on the use of meats, what foods may be used as alternates?
3. Make a study through the grocery stores and bakeries in your community of the kinds of cereals and breads sold to learn whether there is a need for a wide educational program in the community to stimulate the use of more whole-grain cereals and breads.

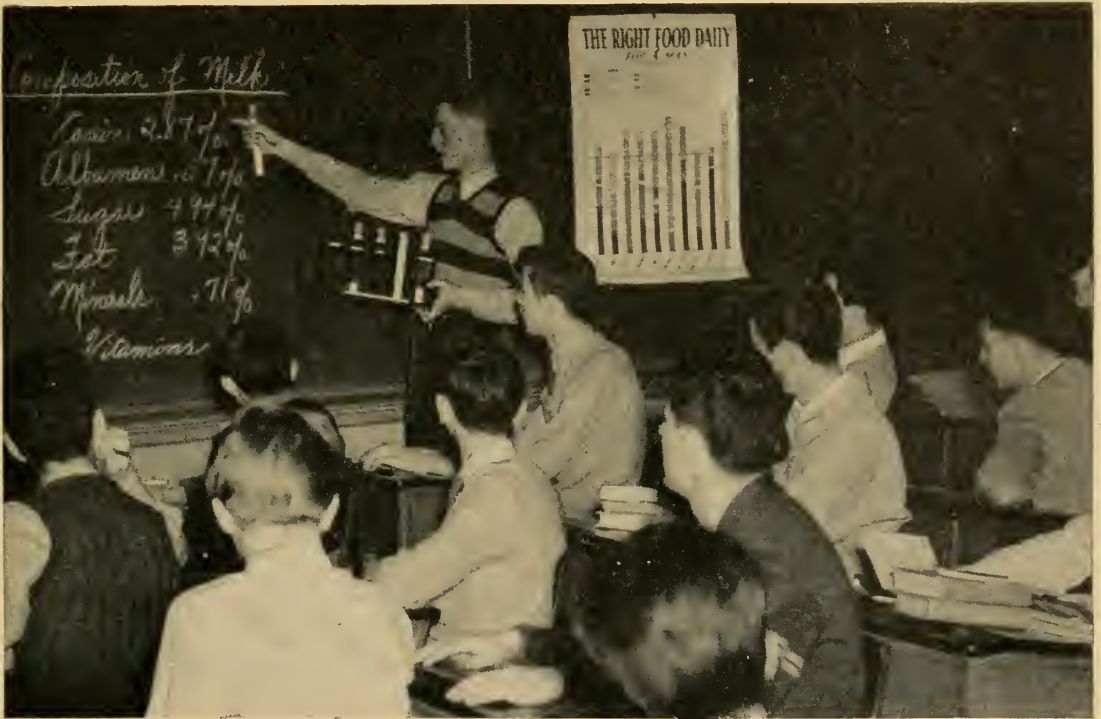
³ Roberts, Lydia J. *The Road to Good Nutrition*. (U. S. Department of Labor, Children's Bureau, Publication No. 270.) Pp. 5-6.

4. Make a study of the kind of lunches eaten between meals in the school, and work for changes which are conducive to better nutrition.
5. Observe luncheon trays in the school to discover whether all the students are getting their money's worth in food values. If they are not, make suggestions as to better lunches to buy. Also make suggestions for the wider use of important foods which can be used to advantage, such as the variety meats, in-

buttermilk. Compare the value of yellow cheddar cheese with whole milk.

7. Find out what provisions the community is making to insure safe milk and milk products and why communities should require the pasteurization of all milk sold. Find out how milk is cared for upon delivery to the school.
8. Demonstrate the packing of a suitable noon-hour lunch for a high-school student, an elementary grade child, and an industrial worker.

Understanding food elements essential for good nutrition.



cluding liver and kidneys, or homegrown vegetables, particularly the green and yellow varieties. Suggest other practical ways of improving the lunch program.

6. Compare the food values of different kinds of milk available in the community such as fresh, evaporated, or dried whole milk; fresh or dried skimmed milk; and

9. Plan a day's meals for a member of a family working in the "swing shift" which begins at 4 p. m., and for a worker in the night shift which begins at 12 midnight. How may their meal schedules differ?

10. As a school or home project, plan and prepare different kinds of simple meals

requiring minimum cooking facilities, little work space, and a limited amount of time. Compile shopping lists and compare with the suggested market lists prepared by the Bureau of Home Economics, U. S. Department of Agriculture.

11. Cooperate with the class or school librarian in arranging an exhibit of books, bulletins, and posters to be used as reference material when studying wartime nutrition problems.
12. Arrange special assembly programs to include movies or slides, speakers, or pupil programs on nutrition for school and community groups. Suggestions for these programs may be obtained from local nutrition committees, extension services, and health departments.

Food Conservation

The Nation is calling upon individuals to assist in the food conservation program by using home-grown products; by canning, drying, and freezing foods; by so preparing and storing foods as to conserve their food values; and by buying wisely and with a willingness to share foods fairly with others. These measures ⁴ for extending the Nation's food supply are types of services which can be performed by high-school students.

Use home-grown products.—The use of locally grown products will relieve the pressure on transportation systems now crowded by the war program and will make available more food for local use. The victory garden program aims at gardens on every fertile piece of land with the planting of more vegetables, including tomatoes, green and leafy vegetables, and vegetables yellow in color. In this program, people living on farms are encouraged to produce the entire year's supply of vegetables for the family and as much fruit as possible.

Can foods.—Commercially canned products are excellent, but as compared to previous years they are less available to the civilian population. For this reason home canning assumes new importance. Because many people will be canning for the first time, the school may put special emphasis on safe methods of canning fruits and vegetables, and on methods which will result in maximum saving of food values.

Dry foods.—Home drying is an important method of food preservation, especially during wartime. No cans, rubbers, or sugar are required. Drying is simple and economical but takes time and attention. Drying by sunshine takes longer than by home-made driers. The shorter the time between getting the fruits and vegetables from the garden to the drier and in completing the drying process, the less the vitamin values lost and the better the flavor.

Foods which can easily be dried are sweet corn, mature beans and peas, apples, pears, peaches, and apricots, as well as many kinds of berries. Dehydrated foods are being extensively prepared today for shipment to our armed forces and allies.

Store foods.—In many places foods can be kept without processing. Foods which can be stored without serious loss in food value include apples, beets, cabbage, carrots, celery, onions, parsnips, pears, potatoes, pumpkins, rutabagas, squash, and turnips. Conditions under which they should be stored away will vary. Some keep best when cool and not too dry; some when cool and well ventilated, and others when cool and dry.

Facilities which are commonly used for the home storage of vegetables and fruits are basement space, outdoor root cellars, and outdoor pits. Directions for storing foods can be secured from the State or county agricultural service.

In some communities refrigerated food

⁴Detailed information on these methods can be secured from local representatives of State colleges and State extension services.

lockers are available in which fruits, vegetables, and meats can be stored after being properly prepared, packed in containers, and frozen.

Save food values.—Heat and air destroy vitamins in foods; water takes up minerals and some vitamins. For these reasons, fresh vegetables should be washed quickly, and kept cold and in their natural coverings until ready

cooked, so they need only to be heated before eating.

Buy wisely.—Point rationing has been introduced so that all may share fairly during wartime. In buying under point rationing, there should be no relaxing of efforts to select foods which will supply the nutritional needs of the family. (See "A Daily Food Guide.") As far as possible, foods should

Packing the lunch box—a class demonstration.



for cooking. Vegetables and fruits should be cut or sliced just before serving to prevent loss of vitamins. They should be cooked in a small amount of water which can be eaten with the vegetables or used in soups or gravies. They should be cooked only until tender. Overcooking destroys vitamins, flavor, and color of vegetables and fruits. Commercially canned vegetables are already

be secured from the unrationed goods. Purchases may then be completed from the rationed goods, using points carefully.

Menus should be planned in advance on a weekly basis. It may be necessary to change meal plans when at the market, depending on the foods available. Selecting foods of equivalent value can be done only when the shopper knows the values of different foods.

Suggestions for Action

Under the supervision and with the guidance of teachers and other school personnel, students as a group may engage in many practical activities relating to food conservation, such as the following:

1. Find out how many servings of different meats such as lamb chops, spare ribs, beef stew, and veal loaf can be obtained from the weekly meat ration. Discuss the value of the variety meats, including liver, kidney, and heart, and select recipes using these meats. Under the direction of a leader trained in nutrition make a list of the foods which supply values equivalent to meat. Have these lists mimeographed and distributed to parents.
2. Prepare a demonstration for students and parents showing ways of conserving the food values in vegetables and fruits by proper methods of canning, storing, and cooking.
3. Invite a member of the community who has been successful in the home drying of foods to show samples of these foods, explain methods of drying, and tell how these foods may be prepared for cooking and serving.
4. Demonstrate the serving of victory meals in which home-dried products are used. Assist in building trays and cabinets used in the process of drying of food.

Wartime Nutrition Programs

During wartime new and different feeding problems arise. With men and women working and fighting for the country, high-school students are being called upon to help in many projects which will contribute to making this a well-fed nation. Among them are family- and group-feeding projects.

Family-feeding projects.—In an increasing number of homes, the working hours of

parents take them away from one or more of the regular meals. It is frequently difficult or impossible to do the marketing at the hours when stores are open. Students trained at home or at school can assume many responsibilities which lessen the strains of war and promote the well-being of each member of the family. A student's responsibilities over a period of time may take any of the following forms: (a) Preparing a nutritious breakfast for himself or for other members of the family; (b) packing palatable, suitable lunches for himself or for other members of the family; (c) planning and preparing simple and wholesome foods for the dinner or supper meal within the budget allowance of the family; (d) compiling market lists prior to marketing and doing the marketing; (e) helping with the feeding of younger members of the family.

Group-feeding projects.—The school may make provision for students to learn ways of assisting with the school-lunch program and other group-feeding projects. All phases of the lunch program offer valuable learning and helping opportunities. Training might include planning simple menus to serve large groups, properly using and caring for equipment, storing and cooking foods according to desirable methods, organizing for the serving of foods, and washing dishes in a sanitary manner.

Suggestions for Action

With the assistance of a nutritionist or a person trained in home economics, high-school students may engage in practical, educational activities such as the following:

1. Observe young children at mealtime and discuss with teachers and fellow students the types of behavior seen. Apply the knowledge gained to the care of young children in the home or in nursery school groups.

2. Discuss the problems involved in feeding a group. This would include a study of such factors as space, equipment, provision for sanitation, personnel for preparing foods, and methods of financing the project. If possible, assist in the organization of a school lunch program, or participate in the improvement of a lunch program already under way.

nutritionist in charge of a community nursery school, a home economist, a public health worker, or a physician.

5. When studying about feeding young children or the family group, appoint a person or a committee from the class group to select materials which are needed from such sources as the State department of education, State depart-

Canning foods for victory.



3. Discuss ways of helping young children develop desirable attitudes toward food. Evaluate the practices of adults and older brothers and sisters in influencing children's attitudes.

4. Plan a day's meals suitable for a 5-year-old child. Talk over these meals with the

ment of health, U. S. Office of Education, Children's Bureau, and Bureau of Home Economics. Many current periodicals also contain helpful material. Be careful not to send for material that may not be used. When ordering from a Federal

(Continued on p. 33)

A DAILY FOOD GUIDE • EAT SOME FOOD FROM EACH GROUP EVERY DAY

Food Groups

1. Green and yellow vegetables; some raw, some cooked or canned.
1 serving.

2. Oranges, tomatoes, grapefruit; or raw cabbage or salad greens.
1 serving.

3. Potatoes and other vegetables and fruits; raw, dried, cooked, or canned.
1 or 2 servings of potatoes.
2 servings of other vegetables and fruits.

4. Milk and milk products; fluid, evaporated, dried milk or cheese.
1½ pints to 1 quart.

5. Meat, poultry, fish, or eggs; or dried beans, peas, nuts or peanut butter.
1 serving of meat, fish, or legumes.
An egg a day, or at least 3 or 4 a week.

Their Food Values

Green and yellow vegetables are important sources of vitamin A. Vegetables with dark green leaves, such as turnip greens, chard, watercress, kale, and spinach are important sources of iron, vitamin A, thiamine, riboflavin, and niacin. Turnip, mustard, and collard greens and beans are good sources of calcium.

Citrus fruits, strawberries, cantaloupe, tomatoes, raw cabbage, green peppers, and leafy vegetables are excellent sources of ascorbic acid. Rhubarb, pineapple, cherries, and raspberries also provide ascorbic acid.

Potatoes are a low-cost energy food and are a good source of ascorbic acid, iron, niacin, and thiamine. Sweet potatoes are a valuable source of vitamin A. Fruits provide some iron, thiamine, riboflavin, and niacin. Fruits yellow in color supply vitamin A. Dried fruits as apricots, peaches, figs, prunes, and raisins are good sources of iron.

Milk is an excellent source of protein, calcium, phosphorus, and riboflavin. It is a good source of vitamin A and a fair source of thiamine. Milk contains a small amount of iron which is well utilized. Other forms of milk having equal value are evaporated and dried whole milk (5 T. dried whole milk=1 c. milk; ½ c. evaporated milk=1 c. milk). Skimmed milk and buttermilk are valuable, since they contain the elements found in whole milk, except fat and vitamin A. (All raw milk should be pasteurized, boiled, or used in cooked foods.)

Excellent sources of protein, iron, phosphorus, thiamine, niacin, and riboflavin. Liver, kidney, salmon, and eggs supply vitamin A. Sea foods supply iodine. Some sea fish such as herring, mackerel, salmon, and sardines are excellent sources of vitamin D. Liver and eggs are sources of vitamin D.

Food Groups

Their Food Values

6. Bread, flour, and cereals; natural whole-grain or enriched or restored.

Cereal or bread with each meal.

7. Butter or fortified margarine (vitamin A added).

At each meal.

Sugar, molasses, sorghum syrup, and cane syrup are concentrated energy foods. Refined sugar makes no other contribution. Molasses and sorghum syrup are excellent sources of iron and also a source of calcium. Cane syrup is a good source of iron.

Water is important in the daily diet.

The use of iodized salt is especially important in goitrous regions.

Infants and young children should be supplied daily with a food rich in vitamin D such as cod liver oil.

The food elements are best conserved when vegetables, such as potatoes, are prepared without peeling. Proper preparation such as cooking vegetables only until tender in small amounts of water saves food values. The water in which vegetables are cooked should be used. If vegetables are sliced or shredded, prepare shortly before eating.

As food supplies change, it may be necessary to make adjustments which cannot possibly be foreseen at this time. Knowledge of the standards will, however, help individuals and families make the wisest use of existing food resources.

(Continued from p. 31)

agency it would be well to have the teacher or librarian place the order since some agencies do not send publications free to students. These materials should be placed in the school library or public library or some other place where they will be widely accessible.

6. Each student may submit plans for a day's meals for a family group of children and adults. Evaluate in terms of these questions: Which is the most adequate? Which is the least adequate? Which is the least expensive? What adaptations are necessary to meet the

needs of each member of the family? Are foods used in menu planning available in the community?

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*This publication can be purchased from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C., at the price stated.

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U. S. Department of Agriculture. Single copies free as long as supply lasts:

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Dried beans and peas in low-cost meals. 1942.

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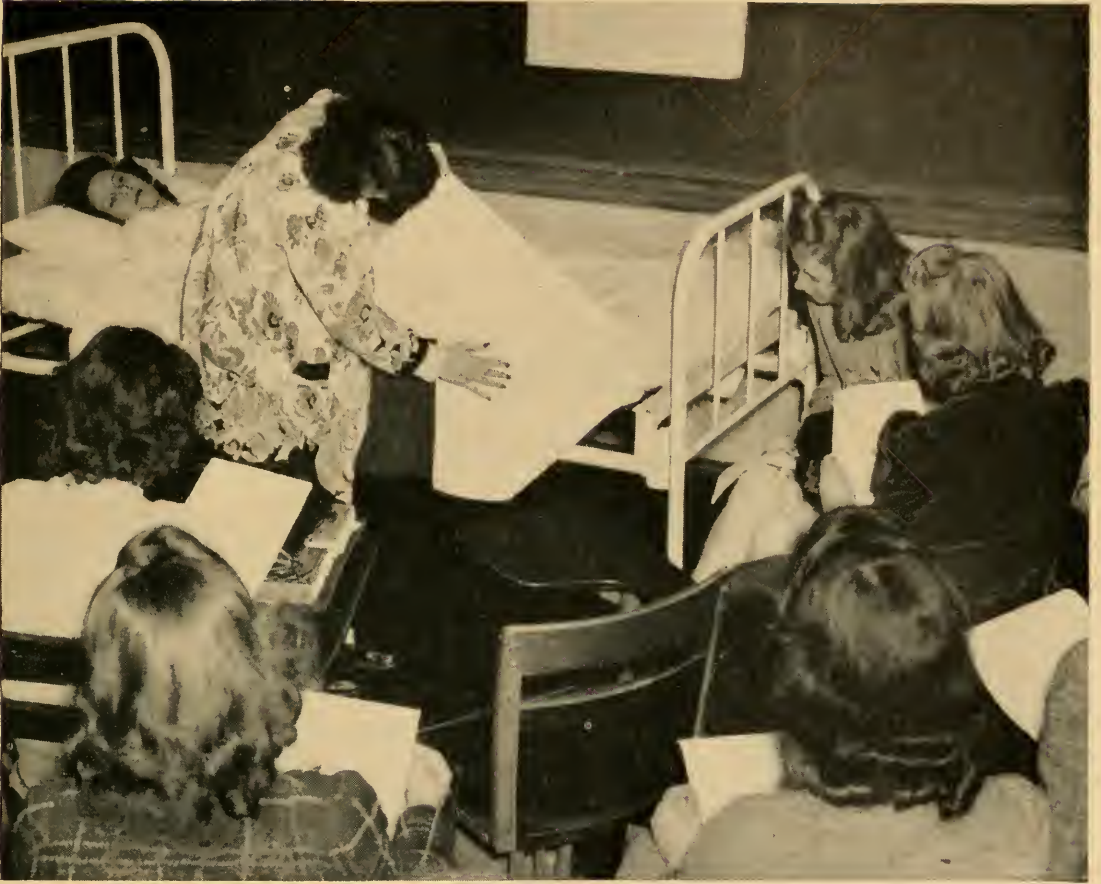
Root vegetables in low-cost meals. 1942.

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When you eat out. 1942.

Demonstrating a home-nursing procedure.



Chapter IV

Prevention of Accidents and Emergency Care

IT HAS never been easy to teach young people to be careful. Perhaps it has never been desirable if "being careful" is thought of as an end in itself. Now, when youth are being asked to undertake the most hazardous tasks the world has ever known, they must realize that safety is a means to an end, the end being to get the job done. If carelessness or ignorance causes the loss of a man in the armed forces or in industry, it is a criminal waste. Accidents aid the Axis. Doing things expertly means concentrating all one's power on the desired goal. Doing things expertly means using time, effort, machines, and human life to the fullest, not wasting them needlessly. Youth will respond to this appeal.

The significance of accidents in this war period can be made concrete by translating the 1941 accident rates into time lost through accidents. In 1941 the 460 million man days lost by either fatal or disabling accidents could have been used to build 20 more battleships, 100 more destroyers, 9,000 more bombers, and 40,000 more tanks. If these accidents could have been prevented, 200,000 soldiers, sailors, or marines could have been better protected with war equipment.¹

The number of deaths from occupational accidents in 1942 ran 3 percent higher than in 1941. With untrained workers in shops and on farms, with longer hours of work, and the desire to work faster, the accident rate may increase alarmingly unless precautions are doubled and redoubled.

An even more direct war loss is the accidental deaths of men in the armed forces. In

1941 these accidents reached a total of approximately 1,800. Of this number more than half were motor vehicle deaths, 32 percent occurring when the men were off duty. (See also chapter VII.)

In general, accident prevention in wartime may be considered under the three somewhat overlapping headings:

1. Problems which are always with us, in peace and in war. Automobile accidents and accidents at school, at work, and at home are included here. These should not be neglected because of concern for present emergencies.
2. Problems which must receive greater emphasis because of wartime changes. More automobiles will be wearing out and more people will be driving under unfavorable conditions. More students will be working in school shops and more young people and adults will be engaging in unaccustomed tasks in industry, farm production, and community services with corresponding increases in hazards.
3. Problems which are part of the activities for defense. Here are included special hazards of air raids, possible evacuation of children, and "blackouts."

Only the second of these problems will be specifically discussed here because published material on general accident prevention and special precautions with respect to activities for defense are available.

¹ National Safety Council, Inc. *Accident Facts*. Chicago, The Council, 20 North Wacker Drive, 1942. p. 2.

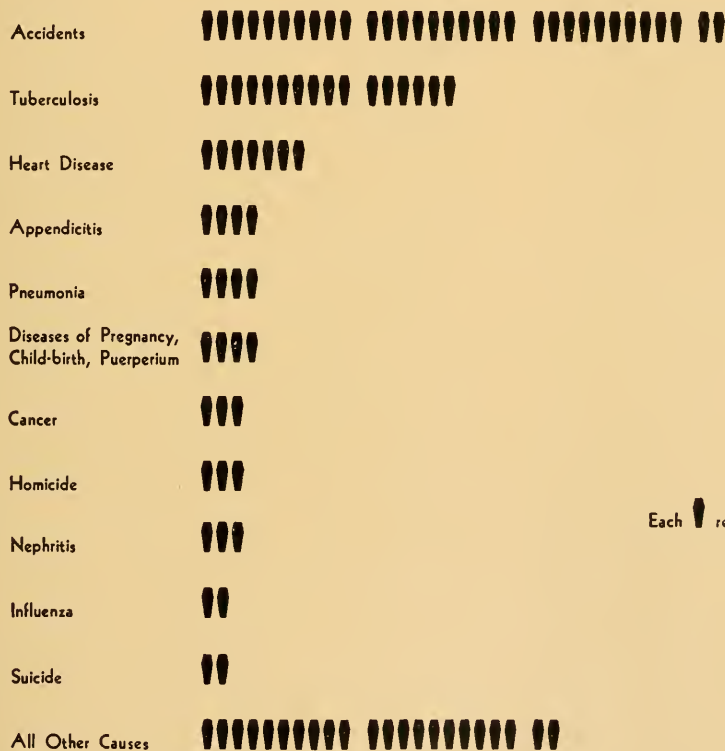
Motor Vehicle Accidents as They Relate to Wartime Conditions

Motor vehicle accidents, in spite of the encouraging decrease in 1942, are a wartime problem because of "blackouts" and "dim-outs" in some parts of the country, the difficulty of replacing worn parts on cars, and the

overloading of cars and busses. It has been said that "no car is safer than its rubber."

Another factor in auto accidents is the use of alcoholic beverages. Studies have shown that slightly more than 42 percent of the drivers who were involved in automobile accidents had been drinking. It has been definitely proved that drinking beverages containing even a small percentage of alcohol is

PERCENTAGE DISTRIBUTION OF CAUSES OF DEATH 15 - 19 - YEAR - OLDS



Each  represents one percent of deaths

1941 U.S. Census data

an important cause of accidents because of the effect on judgment and on reaction time. Psychological experiments have shown that general judgments may be impaired by small amounts of alcohol. Reaction time—the length of time required to respond to a given stimulus—is also markedly affected by alcohol. There is clear evidence that a person who has more than 0.05 percent of alcohol in his blood is unfit to drive safely. He and the drinking pedestrian are both important factors in efficiency-destroying accidents.

Fatigue likewise enters into the accident rate more than ever when people are working to the limit of their capacity. The driver who is “dead tired” should get someone else to drive the car, rather than to run the risk of an accident.

Suggestions for Action

Students can engage in activities such as the following to keep the trend in automobile accidents moving downwards:

1. Analyze the main causes of automobile accidents—poor eyesight and other physical handicaps, inattentive or angry state of mind, lack of consideration for others, alcohol, speed, faulty cars, bad roads.
2. Collect authentic information and prepare specific plans of action on these points: (a) the man behind the wheel; (b) the man on foot; (c) care of the car; (d) care of the highway; (e) common courtesy; (f) social responsibility.
3. Plan with parents and club sponsors substitutes for recreation that requires the use of cars, for example: Picnics near at home, games and informal dramatizations at home, listening to the radio, work in the garden, and appropriate recreation for apartment-house dwellers.
4. Prepare talks and demonstrations on safe bicycle riding that will appeal to younger boys and girls and will practically eliminate such glaring violations of good sense

and safe practice as disregard for highway signs, weaving from side to side on the road, riding after dark without lights or reflectors, making turns without signaling, etc. Start bicycle inspection at school.

5. With a teacher's help, develop an auto driving course which will train students to drive safely.

Safety in School Under Wartime Conditions

Accidents come first as the cause of death (approximately 28 percent of all deaths) among school children of all ages. Obviously, accidents among high-school students interfere with the total war effort by requiring medical and nursing care, by reducing the real service that students are now rendering, and by decreasing potential reserves of manpower.

Vigorous physical education programs increase the danger from accidents in the gymnasium and on the playing fields. Teachers should remember that giving attention to good form will help to prevent accidents in every kind of physical activity.

With the increased number of students taking work in various shops, the need for safety education is more clearly indicated than ever. Items to which special attention should be given include flying hair, loose sleeves, aprons, neckties, or other clothing that might be caught in revolving machinery; the wearing of goggles as protection from eye injuries; proper machine guarding; shop cleanliness and order; and safe practices in the operation of machine and hand tools. By obtaining a conviction of the importance of safety measures in the shop and by getting into the habit of practicing them, the student will be better prepared to work without accidents in part- or full-time war production jobs. This is one of the surest ways of reducing the toll of 18,500 workers killed while on the job in 1942. (See also chapter VIII.)

Suggestions for Action

Students will be interested in engaging in activities of the following types:

1. Study safety situations as they arise in the school, using some of them in group discussions. For example: "Skating is a favorite after-school sport of many of the students. What accidents have occurred thus far this season? How can skating accidents be prevented?"
2. Make a continuous survey of accidents that occur to students, class by class, in the school. Make graphs to show whether accidents are increasing or decreasing and which accidents occur most frequently. Combine work on the survey with the study of ways to prevent these accidents.
3. Work out ways of appealing to other students in the school to prevent accidents from tripping, careless throwing of balls, using sleds on busy streets and other causes of accidents common in certain groups. These suggestions for safety may be made in assembly and homeroom programs featuring charts, dramatization, and pictures; in the school newspaper; or in a series of mimeographed leaflets on "Bicycle Safety," "Good Form in Ball Games," "Tips for Track," etc.

Industrial and Farm Safety

Modern industry expects and demands safe work as well as efficient work from employees. The fatalistic attitude toward industrial accidents has almost disappeared as improved machinery, safety devices, and safety education have been introduced.

The loss of life and labor from farm accidents is also a serious drain on the manpower required to feed the armies and the workers of the world. Accidental deaths of farm residents totaled about 18,500 in 1941. City boys

and girls who go to work on farms need to be aware of special hazards involved (a) in farm machinery; (b) in the improper use of pitchforks, axes, and other farm tools; (c) in the use of ladders; (d) in handling animals; (e) in fires; and (f) in poorly constructed farm buildings. (For greater detail on industrial and farm safety see chapter VIII.)

Suggestions for Action

While in high school, students can contribute to accident reduction in industry and agriculture in ways such as the following:

1. Read books and articles on this subject and extract from them information of practical value. Apply this information to work in shops and to part-time jobs. Discuss safety methods with parents and other members of the family who are doing industrial or farm work.
2. Invite a safety engineer from a nearby industrial plant to tell the group what he thinks high-school boys and girls can do to get ready for a high safety record when they are employed.
3. In science class make a study of ways in which science has been used to prevent accidents. Prepare the results of this study in attractive form for presentation in an assembly or in a homeroom period.

Emergency Care

It is a matter of great importance in the present war crisis that large numbers of people become trained to give first aid and other forms of emergency care. Such care, skillfully rendered, will help save many lives and do much to relieve suffering from injuries or illnesses. In emergency cases, where medical or nursing attention is needed, immediate care will provide a stopgap until the necessary help can arrive. For minor illnesses or injuries care given by lay people may be sufficient and will help to free physicians and nurses for the tasks they alone can do.

High-school students will be performing a real service to their country if they learn the rudiments of first aid and home nursing. Both types of training should be a part of the equipment of every high-school boy or girl. A sound knowledge of the body and how it functions is an important basis for intelligent work in first aid and home nursing.

Suggestions for Action

1. Arrange for instruction in first aid, or if instruction has been received previously, brush up on techniques.

assistance in determining the kind and amount of supplies needed. (Unnecessary purchase of supplies at this time is not advisable.)

3. Assist the school in providing new supplies or replenishing old ones.
4. Encourage each student to investigate first-aid supplies available in his home and to take steps to help the family provide adequate supplies. Making and filling first-aid kits may become a group project.

Learning first aid.



2. Find out just what first-aid supplies there are in school and try to determine whether the supplies are ample to meet emergency needs. If it seems wise, consult the local health department, civilian defense council, or Red Cross chapter for

5. Become familiar with the most important procedures in home nursing. With the assistance of home economics teachers and nurses, practice these procedures as a class activity. (For further discussion of home nursing *see* chapter IX.)

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Chapter V

Daily Program Planning for Balanced Living

Efficient Use of Time

THE WAR has increased the difficulty of organizing time so that one can make a vital contribution and still have a reserve of strength and endurance for more tasks ahead. The high-school student, eager to do his part in the war emergency, is often confronted with so many urgent appeals to participate in community war services of various kinds, that he sometimes finds it confusing and difficult to make choices. Before coming to a decision, he should first figure out how much time he can devote to a given kind of service. He should then learn the nature of the task, consider his own qualifications for it, and decide whether or not he has the capacity to do it.

A student who is carrying a part-time job outside school is performing a valuable war service and, in most instances, it is doubtful if he should attempt additional war work, no matter how keenly he may feel the urge to serve. It would be far better to buy war stamps and cooperate in the conservation program than to deplete his physical resources by doing too much.

Every student should realize that planning for efficient use of time is part of the total planning for health. Each of the major activities—work, eating, recreation, and rest—should be given its due proportion of time and none overlooked. A work day extended to the point where late hours of study are necessary is likely to make inroads on sleep and thus impair efficiency and cause excessive fatigue and strain.

Suggestions for Action

Students may gain understanding and experience in organizing time efficiently through such activities as the following:

1. Keep records of daily activities for several days or one week. The class might analyze and discuss the findings and make recommendations to the individual members of the group for a better organization of time.
2. Each student who feels he has a special problem to face in organizing time may present the problem to the group for consideration. This kind of experience will help students understand the elements involved in efficient planning. For example, a student interested in performing some special war service may take the problem to the group which will then help him find ways to plan time for the service, allowing time also for a balance of regular work, eating, recreation, rest, and sleep.
3. Undertake a study of the causes of absence from school and when possible show how they relate to the daily use of time.

Exercise Wisely Selected

Exercise is another important aid to physical fitness. The new high-school program of physical fitness through physical education¹ lists many forms of exercise which will help high-school boys and girls increase strength and endurance for the difficult tasks ahead. Although most students will participate in this vigorous program, there will be a few for whom the program will need to be modified. Only a good medical examination can deter-

¹ U. S. Office of Education. *Physical Fitness Through Physical Education for the Victory Corps*. Washington, U. S. Government Printing Office, 1942. (Victory Corps Series Pamphlet No. 2.) 25 cents.

mine finally which students can take the work and which should have special consideration. Students will aid the school greatly in its task of making this decision if they will report willingly to the teacher or physician and nurse information on all former illnesses and on all present illnesses or physical impairments.

Naturally, a student will prefer to participate in his favorite activities along with the other students. In order to bring himself to his highest possible physical level, it is sometimes necessary to forego this pleasure at least for the time being. In some situations a modified physical education class is arranged for students who need an adapted program so that they may carry on their individual activities but still have the social benefits of being in a group. In other cases, arrangements are made for a student to carry on his individual program during the regular physical education class period. Following an illness or an accident or for other reasons rest may be more suitable for the individual than activity. Under these circumstances, the student's entire school program may have to be adapted to meet his individual needs.

Suggestions for Action

The following experiences will help students develop better judgment in respect to the wise selection of exercises:

1. Find out from the physician, nurse, or physical-education teacher those conditions which they observe, to determine whether students are capable of participation in vigorous programs of physical activity. Then find out through consultation with these people or through reading, why the particular conditions are chosen as important for consideration.
2. Each student may start a personal program for physical conditioning by setting aside a certain amount of time each day

for physical activity such as a brisk walk in addition to the regular physical-education periods at school. If unaccustomed to physical exertions, it is advisable to start with short periods, perhaps one-half hour in length, and increase the time gradually, week by week, until at least an hour of appropriate out-of-door activity is used. The class as a group may compare notes on types of activities undertaken and on the way they feel.

3. As a means of understanding the importance of maintaining a rational balance or equilibrium between exercise and rest, students may collect information on the following: (a) the difference between real fatigue (muscle fatigue) and mental fatigue; (b) the physical and chemical changes that take place in muscles during exercise; (c) the need for rest following exercise; (d) the procedures that should be followed for the development of endurance and the control of fatigue.

Recreation

Habits of recreation already have been greatly influenced by the impact of the war. For many people, working hours have been increased thereby reducing the amount of time available for recreation as well as for other activities. For others, the time schedule of the shifts or the alteration of shifts necessitates great adjustments in the schedule for family or personal recreation.

The fact that many things are on priority lists necessitates adjustment in recreational activities. Many boys and girls don't know how to play without certain kinds of equipment which is no longer available. Some of them want to drive many miles to a dance or a picnic. Unfortunately some communities do not offer facilities for a ball game, and many do not provide leadership for other outdoor recreational activities.

Obviously communities should plan for such recreational activities as music, dramatics, art, handicrafts. Every high-school student should be encouraged to cultivate hobbies which develop cultural interest and foster a feeling of security.

Stronger family ties are also to be encouraged. Within homes, two opposite forces seem to be at work. In many instances, both the father and mother are working outside the home. Often their schedules are irregular.

protective, and disciplinary institution is a tendency to center more recreation within homes because of tire and gas rationing, and because of black-outs and dim-outs. More and more we hear of the family picnic in a nearby park taking the place of the former all-day motor trip. This tendency is to be encouraged. High-school students can do a good deal to encourage this type of wholesome recreation. They may use resourcefulness and originality

Physician, teachers, and nurses conferring on student case records.



Frequently a daughter of high-school age without adequate training and time allotted in her daily schedule is carrying the brunt of running the home. Too often young people get insufficient guidance within the home, as seen by a reported rise in juvenile delinquency.

In opposition to this tendency toward the break-up of the home as a social, health pro-

in planning varied and inexpensive programs of recreation within their own homes.

Suggestions for Action

1. List curricular and extracurricular activities which foster the development of recreational skills and interests. List those which exist in the local school situation and those which might be added.

2. Help organize new activities in the school or for out-of-school hours which will appeal to a variety of student interests. Help may be secured from the physical education teachers, community recreation leaders, and interested citizens.
3. Give assistance in recreational activities connected with extended school programs for children of working mothers.
4. Plan and carry out an evening of recreation in the home for different types of family groups. Each student may make plans in accord with his own family's interests and schedules, and then compare his plans with those of his fellow students.
5. Arrange for the superintendent of recreation or other community recreation leaders to discuss with the class the recreation needs of the community and the resources for meeting these needs.
6. Find local people with interesting recreational hobbies and invite them to tell the group about the hobbies and how they happened to develop them.

Rest, Sleep, and Relaxation

To offset the strains of war and to provide for recuperation following vigorous physical activity, high-school students need to follow a daily routine which provides sufficient time for rest, relaxation, and sleep. Effective service cannot be accomplished when one is over-fatigued.

Young people of high-school age need a great deal of rest because they are active and growing. The amount of rest and sleep which is needed will vary with different individuals. People who are very active physically and mentally need more rest for recuperation than those who are less active. Time is needed for repair and growth of tissues.

Army and Navy routines provide a balance of activity and relaxation with ample time for rest and sleep. High-school students can learn a great deal by comparing their own living with these routines.

Short rest periods at intervals help to reduce fatigue and irritability and increase efficiency. Employers have introduced rest periods into the factory day with beneficial results. Such a simple device could be easily incorporated into the school day at the beginning or end of class periods.

To secure maximum value from a rest period it is necessary to relax as completely and quickly as possible. Relaxing is a skill which is well worth acquiring, and can be improved with effort and practice. In a classroom it is possible to lay the head on the folded hands on the desk and let the body sag forward. In the gymnasium one may stretch out on the floor. At home, even the floor is preferable to a bed which sags. The one thing to bear in mind while consciously relaxing is to let the body rest its full weight on the support. In the process of relaxing, one can pay attention to one part of the body at a time, as to the right arm, then the left arm; to the right leg, then the left leg; and finally to the trunk. It is especially important to try to relax the muscles of the neck and face during rest pauses.

Rest and relaxation as well as physical activity and recreation should be adapted to individual needs.² People who are not well, people who are under severe physical strain, and people who are worried will need to give particular attention to relaxing. Below-par students should welcome suggestions like those above. We should all subscribe to them more assiduously than ever when our lives are arduous or when we are disturbed emotionally.

² Rathbone, Josephine L. *Relaxation*. New York, Teachers College, Columbia University, 1943.

HEALTH NEEDS OF YOUTH

SHOWN BY NYA EXAMINATIONS—1941

AMONG EVERY **100** YOUTH EXAMINED



EACH  REPRESENTS 5 YOUTH

From data contained in *The Health Status of NYA Youth* prepared jointly by the National Youth Administration and the United States Public Health Service in 1942.

Emotional strains like fear, worry, and presence of impending tragedy brought about by war have their effects on the nervous and muscular systems. The body feels tense and uncomfortable. It moves ungracefully and inefficiently. Even the digestion and circulation are disturbed. At times like these it becomes imperative to pay attention to such simple suggestions as changes in daily routine or rest pauses.

The teachers' attitude toward this problem should be constructive and helpful. For example, if a teacher notices that a student is irritable or fails to maintain good posture, he should investigate the reasons. It may be that the student is not obtaining sufficient rest, is malnourished, or has some defect or illness that is causing the trouble. Just telling a person to be more mannerly or to sit up straight will not be of benefit. When people are tired they tend to lapse into irritability and they are physically unable to carry themselves well.

Suggestions for Action

The following activities may be carried out by the students to increase understanding and improve habits related to relaxation, rest, and sleep.

1. Make a survey of the sleep habits of the group. How could they be improved?

2. Plan a self-checking list of habits which tend to cause fatigue. How could daily routines be adjusted to eliminate any unnecessary fatigue-producing habits?
3. If possible, find out local work conditions in stores and factories as they concern fatigue and rest.

References

Laird, Donald A., and Muller, Charles G. *Energy and Sleep: Why We Need It and How to Get It*. A Tower Book. New York, The World Publishing Co., 1941. 224 p.

The purpose of this book is to present interesting, practical, and valid information about that third of our life which is spent in sleep.

Lane, Janet. *Your Carriage, Madam! A Guide to Good Posture*. New York, John Wiley and Sons, 1934. 140 p.

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Shows changing concepts regarding care and education.

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Pitts, William J. *Training through Recreation*. New York, Bureau of Publications, Columbia University, 1942. 74 p. 35 cents.

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Chapter VI

Developing Sound Mental Attitudes

BOTH ARMY officers and mental hygienists recognize the importance of mental attitudes for personal fitness and for effective war effort. They emphasize the need for a widespread "will to win," the acceptance of war as a hard, long job that has to be done, and the abilities to "remain steady and competent under stress" and to adapt one's attitude toward conditions which cannot be immediately changed. Insofar as the building of attitudes like these is a matter of education, the school's responsibility for the mental health of students through group experience and individual guidance is obvious.

In no other aspect of health education does the teacher play so important a part—as a pattern or example, as a guide or counselor, in his teacher-student relationships, and in his person-to-person relationships with students. Attitudes are caught even more surely than they are taught. It is, therefore, important that the teacher consider his own adjustment to the present situation. Teachers are persons; they have fears, worries, satisfactions, annoyances, expectations, ideals, and purposes. These they cannot hide from their high-school students. It is well for teachers to face with students the present difficult adjustments which they have in common.

Thus counseling becomes a joint quest, a mutual learning situation. Both teacher and student have something to contribute—the teacher, more years of experience and sources of information not available to the student; the student, a knowledge of his personal past and an awareness of the influences pressing upon and penetrating his age group. Although a guide has been defined as "one who has been there before," there is a psychological advantage to the teacher in only being on

his way in adjusting to war situations with the student.

The success of this kind of guidance depends largely upon teacher-student relationships. If the teacher can extricate himself from the authoritarian role so often assigned him, the stage is set for mutually beneficial teacher-student relationships. Democratic procedures in the classroom breed considerateness and cooperation among students and between students and teacher.

Even more individual is the person-to-person relationship of teacher and student. This relationship is different for each student because his emotional needs are different. To some extent the school has always supplemented and, in some cases, compensated for deficiencies in the home. Now, more than ever, the school is responsible for providing boys and girls with the security of dependable human relationships.

Thus the teacher's major responsibilities are to maintain sound mental attitudes himself, provide a classroom atmosphere of respect for each personality and considerateness for one another, confer with individual students who come to him individually for guidance, and refer to available expert sources individuals whom he has neither sufficient time nor knowledge to help adequately.

Obviously, sound mental attitudes may be developed all through the school day. Through the content of every subject and club, as well as through the personnel work and personality of every teacher, students' outlooks and actions may be influenced for the good. From history they may obtain perspective on the present and hope for the future. Mathematics and science may develop precision, decision, a respect for truth and

right solutions—all good mental attitudes. Art, music, and literature help to relieve tension through creative activity. The content of English courses may be modified to include more books which illumine our lives and our time. Similarly, every part of the school curriculum has its contribution to make to mental hygiene.

There are a number of specific wartime mental hygiene problems that teachers and students should face together. These problems are not essentially different from those which confront young people in times of peace. War, however, brings more factors more acutely and more suddenly into the picture. The development of sound mental attitudes in wartime involves:

1. Acquiring realistic views of the present and hopes for the future.
2. Finding, preparing for, and engaging in the kind of war work in which one's capacities can be used to best advantage.
3. Learning to meet wartime situations with a minimum of fear and emotional strain.
4. Adjusting to the frustration and grief inevitably associated with war.
5. Growing up as quickly as the times demand.

Facing Facts

To take a realistic view of the present, to accept the inevitability of pain and hardship, and to have faith in the future are attributes of sound mental health toward which high-school students may make progress. It will help them to reduce disillusionment later if they realize now that the war is a hard, dangerous job, but that to lose the war and be subjected to the fate of Holland, Greece, Norway, and other peace-loving countries is an intolerable alternative. After having accepted the present and its rigorous demands upon every individual, young people may direct their attention to the future which is to be

made possible only by the toil of the present. There is a place in the school for envisioning the future as well as for teaching about the achievements of the past. Many intelligent boys have said, "We must have something to fight for." One young soldier who had traveled across the continent remarked with conviction, "Oh, this is a land worth fighting for." A group of enlisted boys who had organized a successful youth council in their rural community said to their fellow members who were remaining at home, "Don't give up the Council work we've begun, because we want to have something like this to come back to when the war is over."

In order to build right attitudes toward the war and toward democratic principles, teachers may encourage discussion of such questions as:

1. What is the war about? Is it destructive or constructive? If constructive, what do we want to construct?
2. Discuss the statement, "*Independence* was the great word of the eighteenth century; *interdependence*, the great word of the twentieth century."
3. What real sacrifices should civilians make? What sacrifices are we now making to win the war? Discuss the nature of sacrifice gladly made to further an abiding purpose that is far more important than any temporary inconveniences or discomforts.

Suggestions for Action

The group may acquire a realistic view of the present and faith in the future through activities such as the following:

1. Discuss the daily events presented in newspapers and weekly news magazines and over the radio.¹

¹ U. S. Office of Education. *How to Read the News*. Washington, U. S. Government Printing Office, 1942. 27 p. (Education and National Defense Series, No. 16.) 15 cents.

2. Compare life in this country with life in the Axis countries.²
3. Arrange for talks by persons who can speak authoritatively on plans for feeding the world; the need for conserving gasoline, rubber, and other commodities; and other current problems.
4. Read and discuss books that give historical perspective;³ describe what has happened in conquered countries;⁴ give a realistic view of present conditions;⁵ and offer plans for the future. Arrange

a reading corner where this information is easily accessible to students.

Finding One's Place

Available manpower is used most efficiently when each person finds the work that is best suited to him and contributes most to wartime needs. The individual derives therapeutic value and a resulting sense of security in having socially useful work which he can do well. When, on the other hand, a person is

Finding one's place through useful work.



² See, for example, articles published by *Nation's Schools* during 1942, showing contrasts between education in Nazi countries and in the United States.

³ Stern, Philip Van Doren. *The Pocket Book of America*. New York, Pocket Books, Inc., 1942.

⁴ St. John, Robert. *From the Land of Silent People*. New York, Doubleday, Doran and Co., 1942.

⁵ White, W. L. *They Were Expendable*. New York, Harcourt Brace and Co., 1942, and Ramulo, Carlos P. *I Saw the Fall of the Philippines*. New York, Doubleday, Doran and Co., 1942.

driven far beyond his capacities, conditions are favorable for mental breakdowns.

As compared with the depression years, the present is bristling with opportunities for work. There is a wide range of critical occupations requiring different kinds of ability. In choosing the field of service in which

they can make the greatest contribution. students need guidance. This involves an understanding of their own capabilities and a knowledge of the qualifications required for different kinds of war work. The range of choice, too, is limited by the jobs that must be done. Each person is therefore expected to enter the service for which he is best qualified, even though he may prefer some other type of work. He should make willingly the necessary compromise between personal preferences and the Nation's need. Because many factors beyond the individual's control may prevent his entering the specific kind of work he has chosen, more harm than good may be done if the high-school student's choice is too rigid and narrow. For this reason, flexibility in making vocational choices should be emphasized.

Suggestions for Action

The following are some of the activities through which students may be helped to gain information about themselves and the work to be done, and acquire self-direction in choosing and preparing for war work:

1. Assist counselors in keeping cumulative personnel records up to date by contributing facts about their work experiences, social adjustment, goals, purposes, and other items found useful. Cooperate with the counselor in using this record in appraising their fitness for the field of service for which they are needed and in making both immediate and long-term educational plans.
2. Become familiar with the local branch of the U. S. Employment Office, the County Agricultural Agent, and the local draft boards as sources of information.
3. Assist counselor or committee or librarian in keeping an up-to-date file of current materials supplied by the various branches of the War Department, Navy

Department, War Manpower Commission, U. S. Office of Education, Office of War Information, Office of Civilian Defense, Department of Agriculture, Department of Labor, U. S. Civil Service Commission, American Council on Education, National Education Association, newspapers and magazines, and other sources of accurate up-to-date information about the jobs to be done and how to prepare for them.

4. Take part in group discussions of the various kinds of work to be done, calling in representatives of the armed forces, industry, and community services who can supply additional information and answer students' questions.

Meeting Wartime Situations

In situations which the individual is not prepared to meet, in situations characterized by unknown features, it is natural for the individual's blood pressure and pulse rate to increase and for him to have the primitive impulse to run. Under these circumstances, fear is not a sign of cowardice; it is something to be faced and met as constructively as possible, not something to be ashamed of. Part of the fear itself may become a stimulus to effective action.

Desire for the esteem of the group is a strong motive to counteract fear. In all well-trained units of the armed forces members "feel for each other a natural respect and admiration. The knowledge that he enjoys the respect and admiration of his fellow soldier is a source of the greatest pride to each member of the unit. The desire to retain this respect, to be looked on as a worthy member of the unit, will greatly lessen personal considerations."⁶

⁶ Madigan, Patrick S. and Farrell, Malcolm J. *Military Discipline. A problem of readjustment.* Journal of Laboratory and Clinical-Medicine, 28: 483-88, January 1943.

In the case of children's fears the influence of adults is most important. One observer who had visited many schools in one of the war zones during air raids reported that the only instance in which he found children panicky was a class in which the teacher himself became hysterical. High-school students are influenced by the example and attitude of older adolescents, and they, in turn, influence younger children. High-school students should realize that they are part of the community, that their attitudes are important, and that they influence others, especially younger children who look up to them and imitate them.

Another wartime situation to which the individual must adjust is that of making necessary changes in his manner of living. Families moving to another part of the country frequently have many adjustments to make. High-school students are suddenly released from parental supervision when their fathers enter the military services and their mothers leave home to work in war industries. Everyday situations offer students opportunities to learn how to adjust to changing conditions. Every student should be encouraged to take advantage of guidance offered in school through which he can become increasingly able to meet his special problems.

A wartime situation which girls find difficult to meet is the lack of normal boy-girl relationships. They face problems of early marriage or of going with men older than themselves or with boys whom they consider immature. They can make some adjustments through participation in war services and through correspondence and occasional contacts with the boys in their circle of acquaintances who have gone into military service. Likewise an understanding of the situation in the light of war conditions as a whole will help the girl to face the present more realistically and sanely.

It must be recognized, of course, that many

fears, outbursts of anger, and other inexplicable and perverse behavior are not entirely the result of war conditions, but arise primarily from needs within the individual which find these outlets and expressions in various external situations. A person whose early experience has built in him no confidence in the world, no security in his personal relations, is frequently afraid in situations that offer no fear for other persons. To be sure, a certain amount of insecurity in these times is inevitable, but if a person does not respond to usual methods of reassurance and encouragement, he requires individual attention by an experienced and expert guidance worker.

Suggestions for Action

Among the activities that will further students' good adjustment and prepare them to meet still more difficult situations in the future are:

1. Participate successfully in one of the community services for which the students have prepared by skillful preliminary instruction and practice.
2. Participate in group enterprises in which each individual's work contributes to the task at hand and gives him personal satisfaction through the success of the group.
3. Discuss as a group, the students' personal problems and experiences. In this method a concrete description or "story" of an experience, similar to one which many of the group are meeting, is presented. No individual student, of course, is identified with the experience. Then questions are raised as to what would be best to do in that situation and the suggestions offered are evaluated by the group.

Meeting Frustrations and Grief

The universality of frustration, fear, and grief should be recognized and accepted. During wartime, individuals' desires and plans

are frequently blocked. For many young people, cherished education and vocational plans must be put aside, home life is disorganized, personal ideals and goals cannot be realized. The individual, however, may learn to meet frustration in several constructive ways:

1. By fitting his personal desires into the larger purpose of winning the war, and seeing his assigned job, whatever it is, as part of the larger task.
2. By finding harmless emotional outlets such as "speaking one's mind" in situations in which complaints and criticism

Learning to make decisions and to take responsibility through helping in management of their own school.



would not lower morale; recreational reading; engaging in games and sports, music, writing, handwork, and other creative activities. Even in wartimes there should be moments for creative activity for all those who are carrying heavy burdens and responsibility.

It is even more difficult for an individual to meet grief constructively. The war will involve his losing parents, brothers, other relatives, sweethearts, and friends whose personal relationship with him has made his world significant. Under these circumstances the individual still in school will naturally seek stability in the satisfactions of school life. In these times the teacher and other school personnel can mean more to individual students than ever before.

Suggestions for Action

The following are school activities through

which students may be helped to meet war-time frustrations and grief:

1. Use everyday frustrations as opportunities to develop methods of meeting annoyances, thwarting, and failure constructively—studying the situation to see whether anything can be done to improve

it, directing one's attention to other more profitable activities if nothing can be done about the frustrating situation.

2. Small informal groups of intelligent students under the leadership of a qualified teacher may, through discussion, come to a better understanding of what it means to be an adolescent: How they have changed, what capabilities have developed, how they get along with their family, what is the difference between boys and girls, what growing up means to them. Obviously, this teaching procedure must be used cautiously in order not to suppress a desirable kind of emotional spontaneity. The problem is to learn to direct one's emotions, not to eradicate them; to attain an equilibrium, not an elimination of emotion.

Growing Up Quickly

With the lowering of the draft age the need for developing emotional maturity sufficient to meet conditions which young people will encounter in the armed services and in industry becomes increasingly apparent. In the past, high schools have offered students too little opportunity to make decisions and to take responsibility. Certain primitive tribes "never suppose that the way to train an adult who is capable of making difficult decisions is to make all the decisions for him."

The attitude of adults and of those his own age toward the adolescent and their appraisal of him have a great deal to do with the building of his idea of himself. If a high-school senior is mature enough to enter the armed forces or industry, why should he be treated as a child in high school? In this respect war conditions may exert a positive influence. Young people have suddenly become people of importance. Instead of being unwanted and rejected in the competitive sea of un-

employment, they have become one of the nation's chief assets. Upon them rests the heaviest burden of winning the war. The gap into which adolescents fell—between children's work and adults' work—which existed in cities to a greater extent than in rural areas, has suddenly become bridged. Everyone is needed. For the first time since the last war youth is asked to occupy a vital place in society—a hard and dangerous role, but at least one that gives them the feeling that they are needed and that they "belong." This sense of their importance should be fostered by the persons with whom they come in contact, because believing one's self to be mature and responsible leads to notable achievement, just as feelings of inadequacy and guilt may lead to delinquency and neurotic behavior. Young people today should obtain a sense of immediate satisfaction in their full participation in the serious work of adult life. There are organizing as well as disorganizing values in the war situation for young people if adults can guide them aright.

Suggestions for Action

Adolescents may gain adult maturity through experiences such as the following:

1. Take responsibility for organizing time and budgeting money and planning schedules of work.
2. Participate in community services and group activities after proper preparation and under conditions which require assumption of responsibility.
3. Try to "act on thinking" rather than react emotionally in a situation.
4. Seek individual conferences with counselors when having special problems involving purposes and goals, relationships with their parents, and other problems of growing up.

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This book, written for the Commission on Secondary School Curriculum, presents observations made of adolescent's life adjustments and suggests the significance for education.

Helping Students Meet Health Objectives for Special Wartime Services

Chapter VII

Air, Land, and Sea Services

THE PROBLEMS inherent in military life indicate that preinduction training in health and sanitation will be of definite assistance. This opinion represents the thinking of military officers with field experience as well as those charged with training responsibilities. Time is restricted in the Army and Navy for the teaching of health. Consequently, any reenforcement which can be given to this instruction prior to entrance to military services will aid in providing that all in the services cooperate in observing and carrying out health measures which are essential for the protection and saving of life.

Our democratic method of building an Army and Navy and the urgency of our need necessitate the induction of many men who can meet only minimum physical requirements and other standards. But it would be just as absurd to think of the physical fitness of our armed forces as being on this minimum level as it would be to picture every man healthy, tough, and in the pink of condition. Because the armed forces are so large and their jobs so varied, they are able to use men of varied physical capacity. On one hand, the forces use, for limited service, men whose health is below par or who have definite physical defects. On the other hand, the paratrooper must be in excellent physical condition. He must be strong, tough, and agile, and must be able to care for himself in situations that most troops do not have to face. Pilots, too, must be in excellent physical condition, but fitness to be a pilot is different than the fitness required of an infantry soldier, sailor, or a tank driver. The armed forces attempt to prepare each man for his role in the war effort.

The health responsibilities of an individual, as well as his physical requirements vary with the individual's job, and with his assignment. At a training center or large military camp, the conditions approximate those of a well-run city. Problems of food supplies, water, sanitation, and sewage disposal are handled by trained men using the best of equipment. The responsibilities of any young man or woman in the armed forces are those of the citizen. Personal hygiene is, of course, his responsibility. Such problems as the wise choice of food at canteens when away from camp, alcohol, excess smoking, and venereal disease become important. Army and Navy medical officers emphasize the need for individual responsibility here.

At training centers men and women have many experiences which orient them to military life. They receive a series of "shots" that will protect them from smallpox, typhoid, tetanus, and yellow fever. To know in advance the reasons why these are necessary will help to allay fear and make individuals more cooperative in the military health program. The new recruits are put through a vigorous program of physical and military training. They become stiff, tired, and hungry. They eat more, put on weight, increase their endurance, and gradually become fit. They need to know what to do for sore muscles, how to care for their feet, what to do after exposure and for heat exhaustion. They need to know how to prevent accidents and how to cooperate in the prevention and control of disease.

Advanced training and conditions at the battle front may expose the men to entirely new environments and to very difficult sets

of responsibilities. The squad or company may be on its own, operating independently. Sanitation, food, water, and protection against insects then become individual problems. Each individual will have to take more re-

boy. Nevertheless, there are facts that every potential soldier, sailor, or marine should know, and attitudes and habits he should possess. These should be a major emphasis in a sound health program in the schools if it is

Understanding importance of "shots" will help those entering service to cooperate as this sailor is doing.



sponsibility for personal hygiene and cleanliness. Precautions in eating and drinking become a personal matter instead of one for the mess sergeant. The weather and terrain may combine to make living conditions miserable, yet fighting must go on. The battle front may seem far away to the high-school

directed to young people who may soon be in the armed forces.

Six fields of health training are suggested below. The first five are a desirable part of the preinduction training of any individual who anticipates military service. These five fields were determined by an analysis of

health needs of the armed forces. They represent a common health denominator as important to the infantry machine gunner or naval gunner as to the radio operator, tank mechanic, or pilot. The sixth field suggests the type of training needed for a flier in the air corps. In general, special jobs and special conditions as in the air corps or tank corps may require a different emphasis on health, but ordinarily, this emphasis will be in addition to the basic training and will be given after induction.

1. A knowledge of the body, including simple anatomy and physiology, with emphasis on those organs especially susceptible to disease or injury.
2. A knowledge of the common communicable diseases, their methods of transmission, prevention, and control, and steps needed for group and individual protection against their spread. Development of a readiness to cooperate in disease-control measures.
3. Development of attitudes and skills needed to prevent accidents and to give emergency care.
4. An adjustment to military life which will involve willing acceptance of responsibilities and cooperation with other men in all activities.
5. Intelligent action in respect to other problems of military hygiene that will result in protection and promotion of individual health and in the maintenance of group health.
6. Development of health practices essential for maintaining physical fitness needed to meet the strains to which members of air crews are exposed under modern operating conditions.

Such training coupled with a program of discovery and correction of remediable defects (see Chapter I) will do much to prepare young men and women for military service.

They will perform their duties more efficiently, with less likelihood of individual casualties, and with far greater happiness and feeling of accomplishment. The armed forces are interested that attitudes be built in high-school students which will be conducive to more rapid and more thorough military training, and that permanent health habits be developed which will be available to the inductee during his entire military life.

Organs and Tissues Particularly Susceptible to Disease and Injury

A complete knowledge of anatomy and physiology is neither necessary nor desirable in order for a young man or woman to avoid diseases and injuries. Certain parts of the body are, however, particularly vulnerable to disease or injury, especially under conditions of military life. An elementary knowledge of these tissues and organs may aid young people to understand the reasons for personal hygiene practices, and may cause them to take better care of their bodies and to secure treatment when needed without waiting until more serious involvements occur.

Specifically, functional and simple understandings should be gained about the following:

The skin and mucous membranes.—

The skin and mucous membranes act as barriers against the invasion of disease germs. The dangers of infection from broken skin, burns, splinters, clogged oil ducts, pimples, and boils should be understood as should the importance of keeping the skin clean. Under conditions of military life such knowledge may save lives. Every individual should recognize the impossibility of keeping the skin actually sterile and should realize the importance of treatment and of securing medical attention if the skin or mucous membranes are injured.

The respiratory system.—The mucous membranes of the nasal and throat passages are susceptible to certain upper respiratory infections. The effects of sudden chilling of the body and exposure to cold and to wet may lower resistance to these infections. Infection of the sinuses and middle ear are common and may result from improper medication used in attempts to combat common colds. The middle ears through the Eustachian tubes and the sinuses communicate directly with the upper portion of the throat (pharynx) and the nasal cavities and are frequently involved by extensions of infection from these locations. Medical services are provided by the Army and Navy and every young person in service is urged to avail himself of these services. (For steps which high-school students should take now, see chapter II.)

Digestive system.—The parts of the digestive system, the digestive process, and the relation of the nervous system to digestive action should be understood. Digestive difficulties in military life are, in general, similar to those in civilian life.

Young people in training should understand that automatic (autonomic) nervous connections control the functioning of digestive organs, including the secretion of digestive juices, and that worry, fear, and happiness, all responses of the nervous system, heavily influence digestive processes. They should understand the desirability of adjusting their eating habits particularly with regard to regularity and proper selection and mastication of food.

Army and Navy diets are scientifically balanced. But even if soldiers or sailors were to spend their entire time in basic camps there would be some difficulty growing out of improper choices of food. For although an individual's diet may be carefully planned and he is encouraged to eat all of the food given him, he may nonetheless consistently eat

starchy foods and leave the fresh vegetables on his plate. Furthermore, soldiers and sailors have access to post exchange stores and to community food services. The person who has developed the habit of eating at odd hours may continue this practice to the detriment of his health. (For steps which high-school students can take now, see chapter III.)

Advertisements have appeared in recent publications available to men in the armed forces purporting to show the terrible things that happen to a person if he doesn't take his laxative. This carryover of an American advertising myth into military life may have its harmful effects unless it is combatted by understandings and sound practice gained in civilian life. The nature and effects of saline, lubricating, and bulk-forming types of laxatives and the irritating effects of most laxatives on the intestines and their contribution to chronic constipation should be stressed. Self-medication is always undesirable.

Circulatory system.—A more thorough knowledge of the functions of the heart and the location of the blood vessels, both arteries and veins, is desirable. The influence of body temperature, exercise, hemorrhage, and shock on the circulatory system should be explained.

All young men and women anticipating service should have some instruction in the basic "do's" and "don'ts" in connection with the first-aid care of shock, hemorrhage, and injury. Some degree of shock invariably occurs when an individual is exposed to physical trauma or injury. In addition, the condition is aggravated by any factor which tends to lower blood pressure, such as, exposure to cold, lack of food, lack of water, sweating, and the presence of infection. It should be pointed out that under condition of shock a marked fall in blood pressure occurs with a resultant inadequate supply of blood (oxygen lack) to vital portions of the body such as the brain. With improper handling, this

can lead to serious complications or even to death of the shocked individual.

The proper methods of controlling arterial or venous hemorrhage should be explained and illustrated by means of charts which outline the locations of major vessels.

Cardio-vascular (heart and blood vessel) conditions are among the chief causes of rejections for service. Forty-two men in every thousand reporting at induction centers were rejected for these conditions in December of 1942. The rate has been consistently between 30 and 45 men per thousand. Most of these conditions are of long standing. They result from congenital defects and from diseases and injuries of childhood. Valvular involvement is the chief offender. This, in young people, is generally the result of rheumatic fever in childhood, which may accentuate cardiac damage arising from infectious diseases or focal infections of the tonsils or teeth. Instruction should emphasize the importance of clearing up focal infections where they exist. School practice, based upon such instruction should aid students in securing remediable treatment before hearts become involved. Obviously sound health practice should begin in preschool groups and carry through the entire schooling period.

The body machine: Bones, muscles, connective tissue.—A simple understanding of the way the skeleton is held together and of the manner in which muscles are attached to the bones will aid in avoiding unnecessary bodily injuries. For example, injuries resulting from attempts to lift heavy weights or from improper methods of lifting are among the chief causes of rejection at induction centers and among the common causes of disability in military life. Back sprains, dislocations, and hernias are common results of improper use of the body in lifting. When lifting a heavy object, the student should be taught to get “underneath” it as far

as possible, bend the legs but keep the back straight, and lift with the powerful leg muscles instead of the back.

Young people should understand and practice good care of their feet. The proper fitting of shoes and the care of the foot during long marches or hikes should be emphasized. Even the modern-mechanized military man must spend a great deal of time on his feet and he must know how to take care of them for his own fitness and efficiency.

Eyes.—The field conditions under which military men must work may expose them to eye injuries and to conjunctivitis and lid inflammations unless they understand the proper care of the eyes. (For a more complete discussion of the eyes, see chapter I.)

Suggestions for Action

Activities such as the following may be carried out by the students to increase understanding of organs and tissues and how they may function best.

1. Study models and charts which show how the throat and nasal mucous membranes communicate with the sinuses and middle ear through the Eustachian tube. This study may make clearer how sinus and middle ear infections may occur from improper medication of nose or throat.
2. Demonstrate experimentally how rapid evaporation of perspiration may result in sudden chilling of the body as, for example, when a soldier removes his coat while still perspiring from strenuous activity. For the experiment, secure two test tubes of such size that one fits inside the other. Place 1 inch of water in the outer tube and 2 inches of ether in the inner tube. Using a straw, blow the warm breath into the ether until the ether has all evaporated. A thin sheath of ice will have been formed on the outside of the inner tube, or the out-

side water will at least have been considerably cooled. The ether is comparable to the rapidly evaporating perspiration, and the water to the surface of the body.

3. Find out from friends in the armed services actual menus served at training centers. Compare a day's menu with standards set up in "A Daily Food Guide" found in chapter III.
4. Become familiar with pressure points (see any first-aid manual). Then study

5. Learn some physical activities which tend to strengthen muscle groups used in lifting. Practice lifting and carrying correctly various types of burdens. (See "Physical Fitness Through Physical Education for the Victory Corps.")
6. Check shoes being worn to determine whether they fit. Instructions for doing this are contained in the Army manual on "Military Sanitation and First Aid," page 138.
7. Collect newspaper accounts of instances

Soldiers washing mess kits in soapy boiling water—a procedure worth practicing while camping.



a chart which shows the major blood vessels of the body and see if you can figure why these pressure points are significant in the control of hemorrhage.

in which mastery of certain physical skills has been useful in aiding achievement of war work or actual saving of life.

Control of Communicable Disease

During the most critical time of the previous war, the whole might of the Austro-German Imperial Armies was held at bay on the frontiers of Serbia by a disease alone for a period of 6 months. Typhus fever was the invincible foe which upset the most painstaking plans of the military staffs and influenced the outcome of the war.

The constant menace of infectious diseases to armies caused military surgeons to devote extensive study to them and to search for methods of protecting troops from contagion. Any army which foolishly ignores this deadliest foe in undertaking a campaign is inviting a major disaster. Consequently, infectious disease is an invisible participant at the council tables of the strategists.¹

The proved successful operation of the medical services in this war has been almost miraculous. The careful planning that has been done, the use of the sulfa drugs, the employment of plasma in the treatment of shock and injuries, and the high degree of mobility of field hospital units have reduced death and permanent disability to a remarkable degree.

But the danger of infectious disease remains a constant threat to the military forces. Improved vaccines and inoculations have proved capable of developing much greater resistance to infection than ever before. Nonetheless the responsibility assumed by each individual remains of fundamental importance in preventing disease and epidemics under conditions peculiar to Army or Navy life.

The man or woman in military service may avoid communicable diseases—including venereal disease, which in the past has constituted a major loss of time in the armed forces—to a greater extent than he otherwise could if he is given real understanding of the cause and prevention of common communicable diseases. Basic understanding can be

¹ Maj. Gen. James C. Magee, Surgeon General of the Army, retired.

developed during high-school years. (See chapter II.)

One of the services provided to every person in the armed forces is immunization against certain diseases. Yet military experience has shown that many young people are afraid of and fail to understand the importance of these "shots." Civilian schools can help to provide acceptance of these immunizations by giving insight into their nature and value.

The provision of a safe drinking water supply which is free from disease-producing germs requires most serious attention at posts or cantonments, on board ships, and in field service. At more or less permanent stations, men and women in service need to give but little thought to the matter of water supplies. On field service, however, their cooperation is most important. They are instructed never to drink water from an unknown source, whether it is a stream, well, spring, or faucet unless it has been declared uncontaminated by the medical officer. Often the individual himself must take responsibility for purifying his own supply. Instructions for doing this are contained in the *Soldier's Handbook*.² Disease is further controlled through careful disposal of body wastes. It is a worth-while experience for students preparing for military services to learn how to carry out many of the sanitary regulations before entering the service.

Suggestions for Action (SEE CHAPTER II)

Prevention of Accidents and Emergency Care

The causes of accidents in military life are not at all dissimilar to those in civilian life. Automobile accidents rank first in both instances. Vehicles used in military operations are not designed for the most comfortable

² War Department. Basic Field Manual. *Soldier's Handbook*. FM 21-100, 1941. p. 205.

transportation possible. They are powerful, well built, and must be used on terrain over which pleasure automobiles could not travel. This merely intensifies the problem of safety in the use of vehicles. Falls, too, are important causes of accidental injury in military as in civilian life, and require the application of the same common-sense rules of safety.

It should be remembered that the modern soldier or sailor is a specialist. Men are needed who can operate lathes, work as automobile mechanics, telephone and other communication operators, and as installers, electricians, and so on. For them, the same rules of shop and industrial safety apply as in civilian life. Chapters IV and VIII which present suggestions for safety procedures in the schools and in industry and on farms give facts and viewpoints which can just as easily be applied with profit to military situations.

The basic training of every man and woman in the armed services includes instruction and practice in first aid. This training is sound and practical but is specifically directed toward emergency treatment of the common injuries to which the men or women are subject. The civilian schools can be of great assistance to the armed forces by giving instruction in simple first-aid procedures to students in training and by providing them with some understanding of the anatomical and physiological bases for the procedures. (See chapter IV.)

For the young man anticipating active military service it is especially important that skills be developed in connection with the first-aid treatment of shock, bleeding, and artificial respiration. In addition to these, he will also profit by instruction in (a) treatment of wounds (specific to head, chest, groin, abdomen, appendages); (b) fractures, dislocations, sprains; (c) gas casualties; (d) burns; (e) exposure to cold, heat stroke, sun-stroke; (f) poisonous bites, stings, plants;

(g) removal of foreign objects from orifices, eyes; (h) movement of wounded (where necessary).

Suggestions for Action

In addition to receiving instruction as just outlined, the students may:

1. Find out from the medical officer of a nearby camp the contents of the first-aid kits carried by men in combat service. They may learn the use for which each article is intended.
2. Carry out activities as suggested in chapter IV.

Mental Health and Adjustment to Military Life

The armed forces are just as conscious of mental health problems as they are of physical defects. Personality deficiencies may be more crippling to an individual than loss of limb. Approximately 6 out of every 100 men examined at induction centers have been rejected for mental reasons. More important than this figure is the fact that much of the difficulty men or women have in adjusting to military life and training may be traced to deep-rooted mental habits and attitudes. The extent of this may be difficult to calculate, but investigations show that many of the individuals who find themselves in military hospitals or sometimes in the guardhouse or brig are there because they cannot adjust to the new situations of military life.

In Chapter VI of this bulletin there are suggestions of ways to develop sound mental attitudes that are essential in a well-developed personality. Certain phases of this material might be emphasized for individuals looking forward to induction. It is strongly urged that guidance counselors in the schools become thoroughly familiar with the working of Selective Service, the process of induction into the Army or Navy and military life. This information should be presented realistically

to young men and women so that they may be able to anticipate and accept the facts of the situation. There should be opportunity to discuss military life with officers or friends home on furlough.

Military manpower needs are such that an individual cannot always be assigned to the place where he thinks he belongs. Military training is rigorous, with a necessary emphasis on a kind of alertness and close cooperation seldom demanded in civilian life. Young people should know of the situations they must face and of the possible ways of adjusting and finding one's place in military life. This life is not a blindly regimented affair. There is a place for individual initiative and the person who can take the situation as he finds it may often discover ways to improve his own status and to do a better military job.

For some young high-school graduates, entering the armed services will mean growing up quickly. Coming from a sheltered home the inductee may find himself given adult responsibilities and expected to meet them. An individual's whole pattern of living may change. Habits of eating, sleeping, and working must be quickly altered. A new set of personal relationships must be established. There are new responsibilities to be met. Sixteen- and 17-year-olds can be aided in this growing-up process during their last years of high school. The school program can be modified to place increased responsibility on their shoulders, and to arrange experiences demanding adjustments similar to those of military life. Such experiences as work projects, camping trips, or other group endeavors, where teamwork is involved are all to the good.

Lastly, the individual should learn to understand himself and his emotions. He should understand that there is a place for fear, grief, and anger. He should be familiar with the drives and motives that determine people's

actions. The well-adjusted young man and woman may find military life hard, but he will adjust to it and find certain positive values in the experience.

Suggestions for Action

Students may find it worth while to:

1. Analyze and list some of the mental and emotional characteristics of the well-adjusted individual in military service. They may illustrate each characteristic in terms of possible specific behavior in a particular situation, and indicate why the characteristic is important. Students may consider whether there are ways in which young people during high-school years can prepare themselves to make mental and emotional adjustments required in military life.
2. Carry out activities as suggested in chapter VI.

Other Problems of Military Hygiene

Cleanliness of body, clothing, and barracks.—In civilian life, the observance of the rules of cleanliness at all times and under all conditions is socially desirable and at the same time protects an individual from dangers of infections from fleas, body lice, ticks, and bedbugs. Under military conditions absolute cleanliness is essential to avoid diseases that may cripple the effectiveness of entire armies. Among the most serious of these diseases is typhus fever which is spread by body lice or fleas.

Conditions of field service may make hot baths with running water impossible. Under field conditions the need for cleanliness is, however, even more acute than it is in base camps. Soldiers are advised, therefore, to scrub the body frequently with wet cloths when bathing facilities are not available. When no water is on hand for laundering,

clothing may be crumpled, shaken well and hung in the sunlight for at least 2 hours. Through camping activities high-school students may gain valuable experience in keeping clean under unfavorable conditions.

Particular care must be exercised to prevent skin diseases such as fungus infection of the foot (athlete's foot), as such conditions may chronically incapacitate a man for duty.

Identification of poisonous plants, insects, and snakes.—In this global war, fighting forces are serving in many parts of the world where poisonous plants, insects, and snakes are found. It is not the function of high schools to teach identification of the wide variety of poisonous plants and animals which exist in remote areas. Students anticipating military service, however, should learn how to identify, avoid, and give emergency treatment for those which are common to the locality in which they live. This should result not only in immediate protection, but also should help develop a sense of caution and a degree of respect toward poisonous plants and animals which they may confront later in services. (See also chapter VIII.)

Recreation.—Resources for self-entertainment are essential at Army and Navy bases. Individuals at a base camp have some time when they are on their own. A furlough in a strange city or an hour or two off duty in camp offer opportunities which can be well spent. The continuation of reading or study, participation in the community and camp recreational programs, and the preservation of the type of conduct learned at home are safeguards against the hazards which impair physical fitness and lower efficiency in the performance of tasks. The young man or woman who during high-school years has learned to develop wholesome resources for self-entertainment will find satisfactory adjustments to military life less difficult.

Learning to live away from civilization.—The soldier, sailor, or marine today, off on some war mission, may find himself stranded miles from his base in a lifeboat or on almost any kind of terrain. The individual who knows how to protect himself under such adverse living conditions, who knows what to avoid and how to obtain food and water stands a better chance of keeping fit, and even of surviving, than one who lacks such knowledge. Although specific training on methods of survival is given by the Army or Navy, the young man who during high-school years has learned through scouting or by other means how to live off the land or off the sea stands a better chance of keeping fit and remaining alive.

Suggestions for Action

There are interesting and worth-while things that can be done by young men or women preparing for air, land, or sea services which will shape an appreciation of military health problems involved and contribute to the preparation. They include:

1. Find out health standards that are currently in effect for entrance to the various services for both men and women. Each student with the help of the school physician or nurse should then determine his or her own physical qualifications for the service of preference, and on the basis of these findings set up a personal regimen for improvement adapted to his needs. This should include the correction of any remediable defects, and, for the healthy individual, a physical conditioning program.
2. Plan a series of week-end field marches or camping trips under the leadership of a person experienced in scouting. Apply principles of sanitation and personal conduct required of military men in camp or on field service. Attention should be given to proper methods of

securing safe water supplies, disposal of wastes, care of feet, relaxation, proper eating and drinking habits when on the march, and ways of living off the land. Help can be secured from the Soldier's Handbook and scouting manuals.

3. Join a hiking club, Sea Scout unit, Boy Scout troop, or a study group in nursing, yeomanry, navigation, tactics, and the like to gain practical experience in the care of one's body as well as other essential skills for military service.
4. Find out the standards of personal cleanliness which have been set up as requirements for men and women in the armed forces. Study training camp schedules and facilities which make maintenance of these standards possible.
5. Learn to identify the common poisonous plants, insects, and snakes of the immediate locality. Become familiar also with methods for avoiding them and for applying first-aid treatment if poisoned.
6. Consider the interests or hobbies of students which might serve as relaxation or entertainment during periods off duty or brief periods of leave in camp or while away from civilization.
7. Invite a medical officer from a nearby military camp to tell the students about measures which are being taken to protect the health of the men or women in the camp. The officer may also tell what he thinks is the best health preparation for a young man or woman who desires to enter military service.

Health Practices and Their Relation to Physical Adjustments of the Flier

Adjustments to high altitudes.—Health practices have a definite relationship to the flier's ability to adjust to sudden changes in altitude. If a flier is a heavy smoker, if he has been drinking, or if he has

indulged in gas-forming foods or large quantities of foods, he is less able to remain at high altitudes. Excessive use of tobacco tends to aggravate any minor bronchial, nasal, or laryngeal irritations and thus makes breathing more difficult. In addition, it dries out the nose and throat, it increases the pulse rate, it interferes with the function of the digestive juices, and where the smoke is inhaled, minor degrees of carbon monoxide poisoning occur which prevent the fullest absorption of oxygen.

Alcohol breaks down the flier's resistance to cold; and, even though he may feel warmer, he is much more susceptible to frostbite, chills, and numbness in the sub-zero temperatures encountered at high altitudes. Furthermore, alcohol diminishes the keenness of vision, accelerates heart and breathing rates, and produces a general depreciation of body adjustment which lowers flying ceiling 3,000 to 6,000 feet.

Heavy, indigestible, or gas-forming foods such as frankfurters, beans, cabbage, etc., create gas in the intestines and stomach. At high altitudes this gas expands so that, for instance, at 35,000 feet it will occupy about five times as much space as at sea level. This gas expansion gives rise to severe abdominal cramps and extreme discomfort. Obviously the wise thing to do is to avoid anything in the way of food and drink that tends to increase the natural gases already present.

Blackout.—Fliers in aircraft are subject to the effects of gravity and centrifugal forces at high speed. These forces cause a pooling of the blood in the large veins of the abdomen and lower extremities, thereby causing a diminished volume output of the heart with a resultant falling off of the blood supply to the brain. This causes a condition known as "blackout." Trained fliers are warned to keep physically fit, practice exercises to increase abdominal muscular tone, avoid excess in the use of alcohol and tobacco, and refrain

from acrobatics until 1 hour after meals. Experience has indicated that these factors lower resistance to blackout. The high-school student who has ambitions of being a flier can begin to put himself into condition now by getting into the habit of following practices which lead to and help maintain physical fitness.

Adjustments to sudden changes in temperature.—Temperatures vary from high sea-level readings to -55° C. at 35,000 feet; hence the flier needs to adapt to tremendous variations in making high altitude flights. He should begin early to condition himself for this by working and playing out of doors in all kinds of weather, protected, of course, by suitable clothing.

Suggestions for Action

To gain a better appreciation and understanding of the high physical and mental requirements of fliers, students may do such things as the following:

1. Perform an experiment to determine average reaction time of members of the class as follows: Members join hands and close their eyes. Instructions are given that when one hand is squeezed by a person on one side of an individual, that individual immediately squeezes the hand of the person on his other side. One student starts the signal and the teacher notes the time required for the signal to return to this first student. The average reaction time of the students is determined by dividing the seconds required to make the round by the number in the circle. Determine the distance a plane may travel in this time (about three-fifths of a second).
2. Carry out other experiments as described in such books as "Are you Fit to be a Pilot!" (See references at end of this chapter.)

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Chapter VIII

Production Services

MANY thousands of high-school boys and girls will be working in industry or on farms part or full time before the war is won. No matter what the service may be, the highest possible degree of physical fitness is needed for maximum performance.

A student who is physically fit is well on his way toward being ready for any type of production service. Physical fitness alone is not enough, however, to assure a worker health protection on the job.

In both industry and agriculture, conditions exist which may cause injury to an individual's health or well-being unless they are prevented or corrected. Every student preparing for production services should learn to recognize and understand those conditions hazardous to health in the occupation for which he is training or which he expects to enter. Although much of the responsibility for removing or controlling these hazards rests with the educational supervisors in the school shop, or the employer in industry and on the farm, the worker himself has a responsibility which cannot be overlooked. For example, the length of the working day, provision for rest and lunch periods, healthful housing arrangements or medical services are supervisory matters of great importance which also should be of concern to the young worker himself since he must make adjustments to them. He is more likely to cooperate in control measures if he knows the hazards that are involved and the steps he can take to prevent or avoid them.

Health Requirements and Health and Safety Hazards in Industry

Workers in war industries are exposed to many accidents and health hazards in the

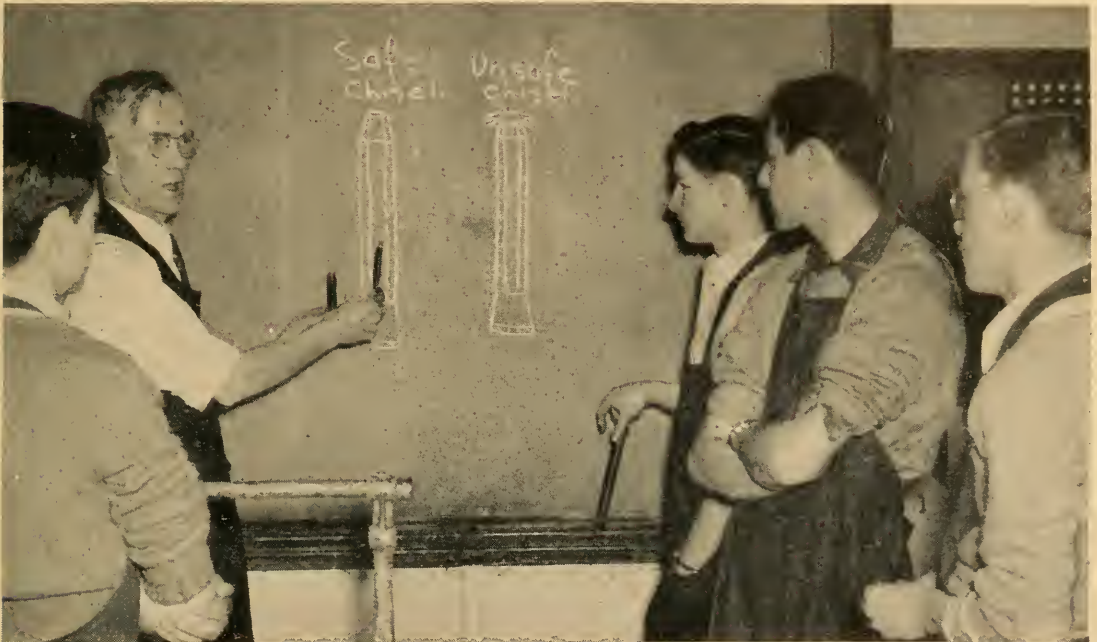
course of their daily work, many of which hold a threat for young workers because of their inexperience or special susceptibility to various types of industrial disease. The development of desirable health and safety attitudes and practices among high-school students during the training period provides sound preparation for effective and safe production when they become workers in industry. The following information and practices should be part of their equipment for industrial production service.

Hand tools.—Regardless of occupation, the worker is exposing himself to injury if his hand tools are not kept in good condition and if they are not handled carefully when in use. Tools in poor condition should be immediately repaired or discarded and a report made to the tool crib. In particular, hammers, chisels, and sledges which have become mushroomed should be repaired without delay. Good heads and tight handles are essential. The carrying of sharp-edged tools in pockets is a practice that should be discouraged from the beginning of training. Only tools suitable for the particular job should be used. The correct way to grasp tools when carrying or working with them should be taught from the outset.

Machine tools.—The extensive use of machine tools in modern industry emphasizes the importance of safeguarding machinery and of safe work practices. Machine tools as a part of the environment of the worker must be properly safeguarded. Proper safeguarding of exposed moving parts is necessary both from the standpoint of machine operators and the general personnel of the shop or factory. Devices to reduce the possibility of personal injury to machine operators are available and workers should be trained in the proper use

of such devices. It is also a well-known fact that workers who are improperly dressed for their work on machines are more likely to be injured than those who are dressed correctly for the work that they do. Proper dress for work is, therefore, an important factor. (See also later in this chapter.) Whenever students work on or around machine tools both environment and activity should meet all the standards of safe work practices.

Learning how to recognize an unsafe chisel (mushroomed).



Electricity.—Ship electricians, maintenance men, and workers in the general neighborhood of electrical equipment must be taught to exercise care in handling electrical wires and appliances and in working with electricity. Portable wiring should not be left lying about a shop or work place. Live parts should be enclosed. Workers should not stand in wet places or wear damp clothing when handling electricity. Rubber boots and other nonconductors should be worn or used when handling live circuits. Electrically driven machinery should be turned off when repairing

or inspecting. Experimentation on one's own with electricity should be barred in the school shop.

4. **Flying particles.**—In foundries, machine shops, woodworking plants, and on the ways in shipyards, workers are especially exposed to the danger of flying particles. It is reported by the National Safety Council that about 2 percent of all accidents seriously

damage or entirely destroy sight. Foreign particles are the greatest cause of eye accidents in industry.

In every industry in which workers are exposed to flying particles, splashes of molten metal or acid, the wearing of goggles should be compulsory. (See "Better Eyes," chapter I.) Medical assistance, not the well-meaning bungling of amateurs, is an essential in the treatment of an eye injured by flying particles. Acid splashed in the eye must be taken care of promptly and expertly. On some machines such as emery wheels, lathes, and milling

machines, permanent chip shields or guards are provided to protect the eye from flying particles.

Where these safeguards have been provided for in the school shop, students should use them and shop teachers should see to it that they are used.

Exposure to heat and glare.—Workers in steel mills and foundries need constant protection from heat and hot substances in the course of their employment. Foundry and steel workers are exposed to danger of burns from molten metals, furnaces, and ladles used in pouring metal. They must be provided with such safety clothing as leggings, safety shoes, gloves, goggles, and often face shields. At the same time, their work places must be adequately ventilated and exhausts provided for drawing off heat and fumes from molten metals.

Welding, in the industries where employed, presents additional hazards. Workers engaged in welding and burning are exposed to hazards of burns either from sparks or from hot or molten metal. In electric welding there is also the danger of electric shock. Goggles and helmets are necessary to protect welders from the intense heat or harmful light rays created in the welding process. (See "Better Eyes," chapter I.) Workers who are not welders but who work in the vicinity of electric welders, and this is particularly true in shipbuilding, are also exposed to an eye hazard from the harmful light rays. They must develop the habit of not looking into the arc without eye protection lest they receive permanent eye injury. In the school welding shop teachers should see that all welding is done behind the welding screens or in the booths provided and that observers outside the booths are protected by goggles.

Industrial poisons.—There is sound reason to believe that young workers are more susceptible to certain industrial poisons than are older workers. Lead poisoning is one of

these. The Children's Bureau of the U. S. Department of Labor has prescribed certain occupations involving lead from which young workers under 18 years should be barred. These include processes in the production of white lead, or other lead salts and oxides; processes in which lead dust is created as in the manufacture of rubber, paint linoleum, or storage batteries; and processes in which molten metallic lead is used, such as foundry work with lead-bearing metals. In other types of work with lead, workers may be protected by proper systems of plant ventilation by means of exhaust pipes and fans, by scientific vacuum cleaning, and by segregation of work places.

Industrial poisons are not limited to lead. Occupations involving exposure to siliceous dusts, manganese, mercury, and certain solvents are likewise dangerous. Certain chemicals used in the manufacture of explosives are exceptionally hazardous unless adequate protection for workers is provided. Metal degreasing, dye making, shell loading, to mention only a few occupations in which young men and women will find a niche for the duration, are jobs in which workers are exposed to industrial poisoning.

It is not likely that the school will train students in such occupations directly, but it can give students instruction in potential hazards of working with such poisonous substances and point out the types of jobs which involve too much risk of industrial disease to be suitable for boys and girls under 18. The school can also explain the safeguards needed for workers of any age who are in jobs involving industrial hazards.

Noise.—Industrial processes are often accompanied by noise. Where thousands of workers are employed and powerful machinery used, this is particularly true. Noise has been found to induce deafness among boilermakers, as well as nervous disorders and fatigue. Riveters are subjected to con-

stant noise as well as bodily vibration; workers in steel mills and foundries and shipyards, and operators of power-sewing machines are exposed to long hours of industrial noise. Plants which install noise-reducing equipment, promote proper rest periods, eliminate all unnecessary noises, and train workers in quiet work habits where possible, can make a useful contribution to more effective production.

Securing periodic medical examinations.—There is every reason to follow the advice given elsewhere in this manual concerning medical examinations. In industry, the purpose is to discover physical weakness which would make the workers less efficient or handicaps which might become worse if the person were employed in certain types of work. In training, the purpose is to help the student and his supervisors know the student's health assets and liabilities so that the student can train for the work for which he is best suited.

Avoidance of fatigue.—Fatigue is an important factor in accidents. It destroys efficiency and impairs production. In industry, the measures which can be used to eliminate unnecessary fatigue will depend upon its causes. Some of the more common causes are muscular work, monotony, noise, long hours of work, continuous standing, vibration, badly designed chairs and benches or equipment, poor lighting, cramped working space, poor ventilation, deep-seated infections, worry, and excitement. In general young workers should not be employed more than 8 hours a day or 48 hours a week, should have 1 day of rest in 7, and should be spared the added strain of night work. They should also learn the importance of rest, relaxation, and sleep, nature's three standard remedies. Workers who know how to relax, to take it easy and yet work well, to conserve energy by doing away with waste motion, find they are less tired. Regular rest periods during the day

are also a good way to avoid fatigue and still keep up production. Industries are finding that a 15-minute rest period in the middle of the morning and afternoon improves the quality of the work done. (See also chapter V.)

Good nutrition.—Fatigue also can be lessened by proper nutrition. Food provides essential energy for the worker just as fuel does for the machine. Basic facts on nutrition presented in Chapter III apply equally well to the worker on the job. The problem of securing adequate meals may differ, however. This is particularly true with the worker on the swing shift who has difficulty in finding a good meal before he goes to work, as well as late at night after working hours. Many industries, recognizing this problem, now open lunchroom facilities for the swing-shift worker. Every worker unable to bring an adequate lunch of his own should buy a nutritious meal in the company cafeteria or in an approved eating place.

Wearing suitable clothing.—As indicated previously, workers in industrial production need to give careful attention to the kind of clothing worn as a means of preventing accidents and avoiding undue fatigue. With many girls entering industry, special consideration needs to be given to the selection of women's clothing which is safe and comfortable, as well as attractive.

Clothing should be selected to fit the job. For example, women who are working around machinery should wear a cap or other head-covering which will prevent hair from being caught in the machinery. For uniforms, they should wear cuffless coveralls, slacks, and blouse or knicker suit, any one of which if properly fitted will allow freedom of movement without danger of entanglement. Loose sleeves, full skirts, ties, jewelry, outside pockets, and rolled-up sleeves may easily catch in machinery and cause serious personal injury. In some types of work, hoods, sleeves,

and gloves may be needed as protection from harmful materials. (Gloves should not be worn around revolving machines.) The importance of goggles has been discussed previously. (See chapter I.) When the worker must stand a great deal, well-fitted shoes will add much to his comfort and will aid in preventing fatigue and nervousness.

Valuable experience will be gained for future work and much immediate benefit will result if teachers will help students in training develop the habits of wearing clothing suitable to the task at hand.

Proper lifting, pushing, and pulling.—(See chapter VII.)

Good housekeeping.—Everything in industry has its place and there should be a place for everything. Coming to work in the morning, the employee should find things in order, and it is considered good shop practice, on leaving, to place tools in readiness for the next day. Poor housekeeping is not tolerated because tools or materials left lying on floors or projecting from tables or benches often cause serious accidents. Corridors and aisles must be kept clear. They are passageways, not places for storing equipment. Cluttering aisles, passageways, work places, and exits also creates fire hazards.

The above are only a few of the outstanding industrial hazards or conditions with which young workers should become familiar and for which they should receive special training in school shops and in health education classes.

Suggestions for Action

The following experiences may be a part of the total training of students in the development of sound health and safety attitudes and practices:

1. In the school shop appoint through group action a small safety committee to assume responsibility for studying safety

problems and making recommendations for improvement. Rotating membership on the committee will provide opportunity for every student to share in this experience.

2. Make a study of the health and safety hazards connected with the industries for which they are training or in which they are serving and of the safeguards which have been provided to prevent accidents or protect the workers from hazards. On the basis of this knowledge, students may then lay out a plan of action for cooperation in the prevention and control of these hazards on the job, and put their plan into effect.
3. Make a special study of safety clothing which is suitable for the kinds of jobs in which students are receiving training or in which they are working. Find ways to provide appropriate clothing. For example, girls may make their own clothing.
4. Study the frequency and severity rates of accidents and their causes in: (a) The local community; (b) the State and the Nation; and learn what can be done by the workers to prevent them. Industrial accident commissions have literature on these subjects.
5. Study with the help of some nearby personnel officer or plant manager the varying conditions in industry to which young men and women must adjust themselves when they go to work. Are different abilities, physical or otherwise, required for various occupations?
6. Consider the different occupations in the industries of the local area in which the physically handicapped (especially those with heart and visual impairments) can safely work and those in which it would be unsafe for them to work. Is any plan being worked out in the local community

to provide suitable work for these handicapped?

7. Study the reasons for the good morale in a shop, plant, or nearby store. How may each student help in maintaining a similar spirit while in training on the job?
8. Follow the press and current magazines for recent changes in working conditions such as: Hours, wages, listing of occupations recommended or prohibited for young workers, and other industrial accident or health conditions and consider their effect on the manpower problem.
9. Find out the standards of the State governing the hours of work, lunch, and rest periods and employment at night, and what services the State provides for the enforcement of these standards.
10. Study the hazardous-occupations standards set up under State child-labor laws and the Fair Labor Standards Act of 1938. These enumerate which occupations are particularly hazardous for the employment of young workers, and, therefore, are subject to a higher minimum age than other less-hazardous occupations. In most communities there will be some occupations to which the higher minimum age will apply. State departments of labor and the Children's Bureau of the U. S. Department of Labor can provide information on these standards.

Health Requirements and Health and Safety Hazards in Agriculture

Health and safety hazards associated with farm work and farm or farm-camp living, about which students in training for or engaged in agricultural production should have special understanding as a part of their preparation include:

Water sanitation.—In the country, sources

of drinking water, whether wells, springs, or streams, may be polluted with disease-producing germs such as typhoid fever, diarrhea, and dysentery. Wherever housing is provided for groups of workers, water supplies should have been tested by public health authorities and declared safe for drinking. Because a farm family has used a well or spring without untoward results does not mean the supply is uncontaminated. The family may have built up an immunity which the newcomer will not have. Despite the vigilance of health authorities, there are likely to be many water supplies along roadsides or near work fields, the sanitary quality of which is unknown. Water carried to the fields should be stored in a covered container and individual cups should be used.

Milk sanitation.—Infectious diseases, such as tuberculosis, undulant fever, scarlet fever, septic sore throat, and diphtheria may be spread by contaminated milk. Supervisors should make arrangements, if possible, to have all milk which is served to young agricultural workers either pasteurized or boiled. The young people themselves should secure what information they can regarding the quality of milk served them and cooperate in steps taken to make the milk safe for drinking. If it is not possible to pasteurize or to boil the milk in bulk, the young people should be willing to use it in foods that are cooked, as cocoa, creamed soups, and custards.

Washing facilities.—Skin and eye infections are easily spread through the use of common towels and unclean washing equipment. Every young person should cooperate in attempts to provide individual towels by using only his own. He also should do his share in keeping washing facilities clean.

Farm accidents.—Farm hazards will naturally vary "according to geographic area, nature of the crop, method of farming, and the

particular process in which the worker is engaged." According to data compiled by the Children's Bureau from many sources, the chief causes of serious injury among farm workers as a whole are:

Tractors and other farm machinery, whether power-driven or animal-drawn; livestock; falls from ladders or trees while pruning trees or while thinning or picking fruit, or from hay mows; vehicles; strains, sprains, hernias, and back injuries caused by improper and awkward methods of lifting heavy objects, as in loading or unloading operations; improper use of farm tools, such as pitchforks, axes, scythes, knives, and scissors; careless use of gasoline and kerosene resulting in explosions and fires; climatic or weather conditions, such as exposure to lightning and excessive exposure to sun, causing heat-strokes and sunstrokes; infections caused by neglect of minor injuries; and many others.¹

Information already available from numerous sources indicates that these, too, are leading causes of injury among young farm workers. Under wartime conditions it is believed that the number and severity of these injuries will increase unless active steps are taken to prevent them.¹

High-school boys and girls engaged in farm work have a unique opportunity to assume a responsible role in the prevention of accidents. Unlike industry, where safety rules and regulations are usually followed under careful plant supervision, safe work on the farm is largely an individual matter. Even in the wartime farm program in which groups of young people work together under supervision, the responsibility for accident prevention rests primarily on the individual.

Since, as already suggested, each type of farm has associated with it distinctive health and safety hazards, no attempt can be made here to give a complete picture of the specific problems students are likely to face. A few illustrations, however, are presented as typical.

Tractors lead in the causes of farm acci-

dents. Accidents from tractors occur most frequently when the machine is driven too fast over rough ground or when it is otherwise handled improperly so that it overturns or the driver is unseated.

Carelessness in getting in the way of running belts and pulleys, as on hay balers, and of other machinery in motion may result in injuries to the hands, feet, or other parts of the body.

As stated previously, the improper handling of farm tools results in many accidents. For example, the thoughtless habit of leaving pitchfork tines or rake teeth exposed on the ground may cause falls or foot injuries.

Every young person unaccustomed to farm machinery or unfamiliar with correct methods of handling farm tools should receive instruction before attempting to handle these alone. This is as important as taking driving lessons before attempting to operate an automobile. Very special instruction is needed for complicated machinery as tractors and combines which require unusually skillful handling. Often, however, some simple procedure is all that needs to be learned, as, for example, the simple habit of driving pitchfork tines and rake teeth into the ground when left temporarily, or hanging up the tools in their proper places when put away for the day.

Kicks from horses, mules, and cows; falls from work horses and encounters with bulls account for most of the accidents caused by farm animals. Animals need to be handled intelligently and with care. The novice on a farm needs instruction in the handling of animals as in other farming techniques. Certain rules govern the handling of each kind of domestic animal (for example, one should always speak to a horse or mule before going behind). Animals, like human beings, have individual peculiarities which must be learned and respected and only the farmer knows these.

Excessive heat.—Prolonged work in in-

¹ Noll, Miriam. *Accident Hazards to Young Workers in Wartime Agriculture*. Washington, D. C., Children's Bureau, U. S. Department of Labor. Mimeo.

tense heat or under the direct hot rays of the sun may result in sunstroke and heat exhaustion. To prevent these conditions a worker should (a) wear a hat in the sun; (b) wear absorbent cotton clothing next to the skin; (c) take extra salt to maintain the body's salt balance (loss of salt balance may produce heat exhaustion); and (d) drink plenty of water to make up for body losses of water through excessive perspiration. Gradual exposure to heat will help prevent its ill effects.

eruption. In some regions of the country precautions must also be taken against poisonous snakes and against insects which spread disease. For example, if a region is infected with ticks, the worker should examine himself carefully every night, remove any ticks, and treat the wounds with iodine. In many regions of the United States the ticks carry Rocky Mountain spotted fever. (For information on malaria which is also spread by insects see Chapter II).

Receiving instructions on how to operate a tractor safely.



Poisonous plants, snakes, and insects.—Poison ivy, poison oak, sumac, and other weeds or shrubs may give rise to skin eruptions which will cause great inconvenience and loss of time from work. Workers should learn to recognize these plants in order to avoid them, and, if exposed, should know how to wash thoroughly and quickly with strong soap to remove the oil which produces the

Securing medical attention and applying first aid in an emergency.—Medical services are scarce in many rural areas. Students who go to farms to help during the war should have a thorough medical check-up before they go; should find out what will be done on the farm to secure medical care in case of injury or accident; and should know the fundamentals of first aid

so as to be able to meet an emergency situation for themselves or others until a physician can arrive. It is important to give proper care to minor injuries such as cuts, blisters, scratches, and puncture wounds even though they appear to be unimportant. On the farm it is easy to get dirt into wounds and tetanus is a possibility in deep puncture wounds.

Good nutrition.. (See Chapter III.)

Clothing.—In agriculture, as in industry, suitable clothing is needed for safety protection and comfort. Women particularly must give attention to safe and appropriate clothing. The United States Department of Agriculture recommends a field suit for women which is designed for heavier kinds of farm work that women are being called upon to perform today. This is a two-piece suit which covers the body well as a protection from the hot rays of the sun. The ankles of the trousers are tight-fitted so they will not catch on machinery. Other features of the suit, as well as other types of clothing appropriate for work on farms, are described in a recent publication of the Department of Agriculture.²

Proper lifting, pushing, and pulling.
(See Chapter VII.)

Suggestions for Action

The following experiences may be a part of the training of students who are preparing for farm work or who are in farm service:

1. If farm work is anticipated among non-farm youth, arrange through the school for each student concerned to spend several weekends on the farm where he will eventually work. During this apprenticeship period the student should find out from the farmer what work he will be expected to do; he should then learn how to do this work skillfully and safely. Working alongside young farm people

will be one way of developing these skills. An exchange of experiences during class periods will help broaden an understanding of the problems involved.

2. Take inventory of health and safety hazards on the farms with which they are associated. Work out and then carry out plans for removing the hazards or minimizing their potential harmful effects. This may involve such improvements as making repairs, better housekeeping, or learning how to handle farm equipment or animals better.
3. Become familiar with the poisonous plants, snakes, and insects in the locality and arrange a picture display so that all who expect to do farm work will know how to identify them.
4. Take a first-aid course especially adapted to the emergency care of accidents likely to occur on farms.
5. Prepare a simple first-aid kit for use on the farm.
6. Become familiar with the health agencies in the locality where one expects to work and learn what services they offer for the health protection of the farmers and for the young people themselves.
7. Pasteurize milk as it would be done at home. Place 2 or 3 quarts of milk (the usual family supply) in an aluminum or similar vessel on a hot flame and heat to 165° F. stirring constantly. As soon as the milk reaches this temperature set the vessel into cold water and stir the milk until cool. This method can be used satisfactorily only if a thermometer is available. Otherwise, milk should be brought to the boiling point and then cooled quickly.

References

American National Red Cross. *Preventing Accidents*. Washington, D. C., The American National Red Cross, 1941. Revised edition. 29 p. Free.

A booklet on home and farm accidents prepared for teachers and youth leaders.

² U. S. Department of Agriculture. *Work Clothes for Women*. Washington, U. S. Government Printing Office, 1942. 16 p. (Farmers' Bulletin No. 1905.) 5 cents.

Kansas State Safety Council. *Safety First in Kansas Farming*. Topeka, Kansas State Safety Department, 1942. Free.

This booklet presents simply and effectively the most common farm accidents and ways of preventing them. Well illustrated.

Martocci, Agnes. *Safety for the Worker*. Washington, U. S. Government Printing Office, 1942. 10 p. (U. S. Office of Education, Defense Training Leaflet No. 1.) 5 cents.

Prepared to acquaint trainees in industrial training classes with some basic safety principles and practices that every worker should know.

Michigan State Board of Control for Vocational Education in Cooperation with the U. S. Office of Education. *Training for Safety*. Lansing, Michigan State Board of Control for Vocational Education, 115 West Allegan Street, 1942. 155 p. 45 cents.

Outlines a safety training program for school shops. A comprehensive manual which includes safety facts and test in connection with each type of job training. Well illustrated.

National Safety Council, Inc. *Problems in Safety Education for Workshop Participants*. Chicago, The Council, 20 North Wacker Drive, 1942. (Safety Education Memo 16.) Free.

——— *Rural Safety Bibliography*. Chicago, The Council, 20 North Wacker Drive, 1942. (Safety Education Memo No. 27.) Free.

——— *Safety Training for Vocational Schools and School Shops*. Chicago, The Council, 1938. 63 p. 50 cents.

——— *Vocational Safety Bibliography*. Chicago, The Council, 1942. (Safety Education Memo No. 32.) Free.

National Society for the Prevention of Blindness. *Saving Eyesight in Industry*. New York, The Society, 1790 Broadway. (Publication No. 256.) 25 cents.

Noll, Miriam. *Accident Hazards to Young Workers in Wartime Agriculture*. Washington, D. C., Children's Bureau, U. S. Department of Labor, Mimeo. Free.

Significant data on the nature and extent of the farm accident problem are contained in this report.

U. S. Department of Agriculture. *Farm Work and Safety for Young People*. Washington, U. S. Government Printing Office. (In press.)

This bulletin was originally prepared for field workers of the Department of Agriculture, but it contains much practical information for students and teachers.

——— *Work Clothes for Women*. Washington, U. S. Government Printing Office, 1942. 16 p. (Bureau

of Home Economics, Farmers' Bulletin No. 1905.) 5 cents.

Contains designs for suitable work clothes for women. Well illustrated.

U. S. Department of Labor, Women's Bureau. *Lifting Heavy Weights in Defense Industries*. Washington, U. S. Government Printing Office, 1941. (Special Bulletin No. 2.) 5 cents.

This bulletin gives instruction on proper methods of lifting. Illustrated.

——— *Safety Clothing for Women in Industry*. Washington, U. S. Government Printing Office, 1941. 11 p. (Special Bulletin No. 3.) 10 cents.

Contains descriptions and pictures of safe clothing in industry and lists dangerous jobs which require special kinds of work clothing.

U. S. Office of Education. *Safety: Principles and Practices*. Washington, U. S. Office of Education, 1942. (Misc. 3457, Ref. VE-ND.) Free.

A partial list of references—vocational training courses for war-production workers.

——— *The Worker, His Job, and His Government*. Washington, U. S. Government Printing Office. 63 p. (Vocational Division Bulletin No. 220, Defense Training Series No. 1.) 15 cents.

An introduction to Federal labor laws, including laws for safety.

U. S. Public Health Service. *Ivy and Sumac Poisoning*. Washington, U. S. Government Printing Office, 1940. 8 p. (Supplement No. 161.) 5 cents.

This illustrated leaflet describes the poison ivy and poison sumac plants, and gives information regarding the poison, including nature, symptoms, prevention, and treatment.

——— *Workers' Health Series*. Washington, U. S. Government Printing Office. 5 cents each.

- No. 1. But Flu is Tougher.
- No. 2. Leonard's Appendix—And How it Burst.
- No. 3. KO by CO Gas.
- No. 4. Clara Gives Benzol the Run Around.
- No. 5. Trouble in the Midriff.
- No. 6. Bill Gets the Works.
- No. 7. Night Shift.
- No. 8. Save Your Skin.
- No. 9. Willie's Victory Torch.

These pocket-sized pamphlets for the worker are written in an informal style. They treat subjects of interest to students in training for production services.

Williams, Jesse F., and Oberteuffer, Delbert. *Health in the World of Work*. New York, McGraw-Hill, 1942. 405 p.

This book indicates the health problems of modern industry and points out guides for living that may be helpful to young men and women on the threshold of the business or industrial world.

Chapter IX

Community Services

HIGH-SCHOOL students will enter a wide range of community services on completion of their school work. In addition to going into industry and agriculture they will become office workers, store clerks, teachers, nurses, homemakers, salesmen, librarians, social workers, or some other kind of community worker. Already many of them while still in school are in some form of community work as a wartime contribution.

Each individual on entering a job will do his best work if he is in good physical condition. A student who is generally fit will be ready for most future services. However, for some services additional health preparation is needed because of the health and safety hazards involved. Since future community services cover such a vast field of human endeavor, and since each form of service has its peculiar health requirements or health hazards, no attempt will be made here to single out specific services for attention. Rather, each student, aided by his counselor, should familiarize himself with the health requirements and hazards related to the service for which he is preparing.

The material in this section is focused on a few specific war-related services in which students are participating now. These include child care and extended school programs; home care of the sick; school feeding; school and community sanitation and clinic services, all of which require health preparation for their successful execution. Service in any one of these fields has the distinction of contributing to the health and welfare of the community, thus indirectly contributing to the health of the student who performs the service.

The health preparation needed for each of the services is presented below. Some of this preparation is primarily vocational and some of it is social preparation which has the value of developing sound health attitudes and practices.

Child Care and Extended School Programs

With increased demand for women in war work, the need for trained personnel to care for their children becomes an urgent problem in community services. High-school students are helping to meet this need by (a) caring for younger brothers and sisters and neighbor's children in their homes; (b) assisting in nursery schools, in before and after school programs, and in other projects for the care and guidance of children; and (c) cooperating in the conduct of established community services for children such as playgrounds, libraries, and museums.

Since these services involve close work with children, students should take every possible health precaution which will protect both the children and themselves from communicable diseases and infections. These precautions include (a) being immunized successfully against diphtheria, smallpox, and other diseases as recommended by the local health authorities; (b) avoiding exposure to colds and other communicable diseases, and remaining at home when one has a cold; (c) keeping hands free from breaks in the skin or covering breaks that occur; (d) washing hands frequently and keeping nails short and clean. From the standpoint of mental hygiene, the students themselves should be good examples of well-adjusted personalities.

Among the special health skills needed to work effectively with children, the following are important: (a) ability to assist with observation of health and of general behavior; (b) ability to make a positive approach to children and to help with the guidance of daily regimen, involving play, rest, sleep, and bathing; (c) ability to prepare and serve food for children of different ages; (d) ability to help direct games and other play activities; and (e) ability to guide children safely on excursions.

In addition to a general preparation, each student should become thoroughly familiar with the health problems associated with his special field of child-care service. For example, the student who works in a home may need to know more about preparation of food, while the student working with groups of children in a child-care center will need to gain more experience under supervision with techniques of observing signs of communicable diseases.

Home Care of the Sick

After suitable training and under trained guidance, students electing to render services in homes may give valuable aid in the care of chronically ill and feeble people or of those afflicted with minor ailments. They should not attempt to care for people who are ill with communicable diseases. This is too much of a risk for high-school students, and is a responsibility which should be assumed by older people.

In preparation for services in this field, students should meet the qualifications outlined under child care as related to the protection of themselves and others from communicable diseases.

Special health skills needed for effective work in home care of the sick include (a) taking of pulse and temperature; (b) making a bed with a patient in it; (c) preparing and

serving wholesome meals; (d) observing rules of cleanliness.¹ All these skills should be carried out under the supervision of parents, physician, or public health nurse.

School Feeding

As stated previously² students may carry an important share of the responsibility for the school-lunch program through assistance in the preparation and serving of food and in the sanitary maintenance of the lunchroom. Health requirements and preparation for this service include (a) application of measures for the protection of self and others from infection, as described in connection with other community services; (b) understanding and applying sanitary methods for storing and handling food; (c) ability to cook food so as to conserve taste and food values; and (d) ability to prepare and serve foods which are suitable for the school-age child.

School and Community Sanitation

High-school students can render useful services in a variety of school and community sanitation activities. At school they may assist with ventilation, lighting, or heating and with the care of school grounds, lunchrooms, toilets, gymnasiums, and locker rooms. In the community their services will, of course, vary with needs. In general, rural communities have greater needs and opportunities for services in this field than do urban communities. Examples of community sanitation services essential in wartime are: (a) Mosquito-proofing of houses in malarious regions; (b) construction of sanitary toilets; (c) rat-control work; (d) housing surveys; and (e) community education on milk sanitation.

¹ Many other needed skills are outlined in home-nursing manuals. (See references in chapter IV.)

² See chapter III.

To perform each of these services satisfactorily a student should understand the importance of the service to the health and welfare of others, and develop skills needed to do the work well. To illustrate, in rat control, the students should know that the work is necessary because such rodents are economically wasteful and may harbor fleas which are responsible for transmitting endemic typhus fever and bubonic plague to human beings; and that control of rats includes destruction of the breeding places and of the rats themselves. Control techniques would then need to be learned under the general supervision of those responsible for rat-control measures which, in most instances, would be the public health department. Some appreciation of the wartime significance of rat-control work should enhance interest in the problem.

Clinics

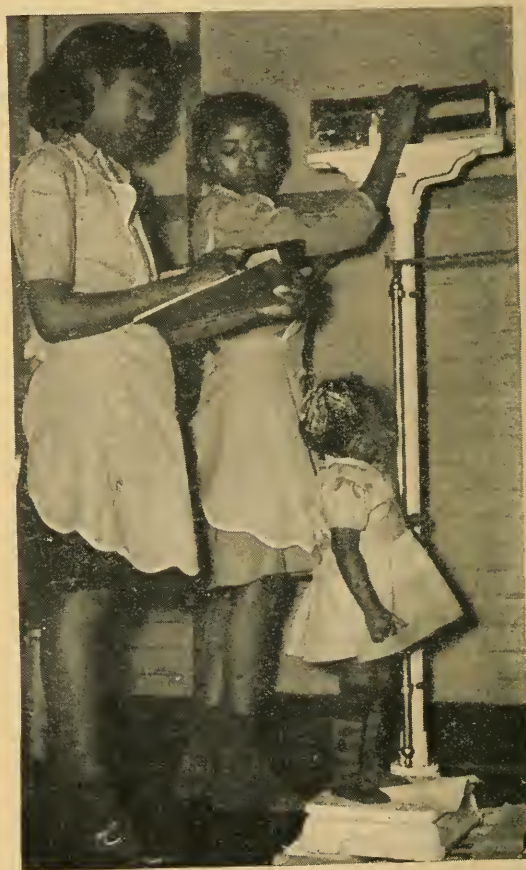
Clinics in which high-school students can serve under supervision include school, immunization, child-health, maternity, and those concerned with the correction of defects. Since these services involve close work with people, students should take health precautions essential for protecting themselves and others from diseases or infections. As in child-care services, they should (a) be successfully immunized against diphtheria, small-pox, and other diseases as recommended; (b) avoid unnecessary exposure to colds and other diseases; (c) remain at home when afflicted with a cold; (d) keep hands free from breaks in the skin or cover breaks that occur; (e) wash hands frequently and keep nails short and clean.

The following special skills are illustrations of those which may be needed to work effectively in clinics: (a) weighing and measuring of children; (b) taking body temperature and pulse rate; (c) keeping the clinic clean and orderly; (d) using aseptic techniques; (e)

meeting and getting along well with other people.

For each of the clinic services, additional preparation may be needed. For example, assistance in an immunization clinic would require familiarity with immunization procedures and some understanding of communicable diseases so that the work is intelligently performed. For the same reasons, assistance in school clinics would require a knowledge

Gaining an understanding of growth and development through a service activity.



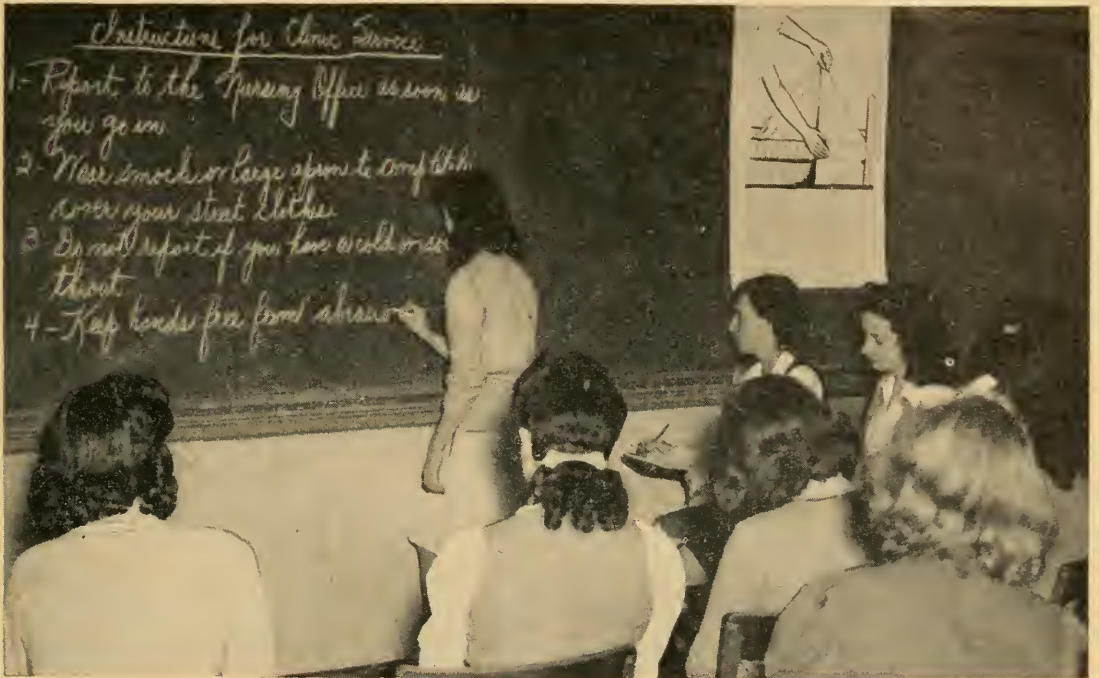
of the services which are offered and the values to be gained. This preparation should be made under the general supervision of clinic nurses or physicians.

Suggestions for Action

Groups of students, as a part of their preparation for community services may:

1. Discover the health preparation needed for satisfactory performance of the most common types of community service open to students in the local community. Each student may wish to choose his own field of service for this study. On the basis of findings, he and others in the group
3. Find opportunities for services within the home which will contribute to the family's health and well-being. Numerous suggestions are given throughout the manual.
4. Observe work techniques of a public health nurse or some other health worker who is known to render effective service, and try to determine what it is that makes that person successful.

Preparation for clinic service.



who have similar interests, along with teachers and appropriate health personnel, may then work out and carry out a plan for securing the necessary preparation.

2. Explore new possibilities for important wartime community services in health through consultation with local civilian defense councils, public health departments, and other community health and welfare agencies.

References

Child-Care and Extended-School Programs

Aldrich, C. Anderson, and Aldrich, Mary M. *Babies are Human Beings*. New York, The Macmillan Co., 1938. 128 p.

A readable book on child rearing from which students as well as teachers should receive help.

Connecticut State Department of Education. *Child Care Programs*. Hartford, Connecticut State Department of Education, May 1942. 84 p. 20 cents.

This handbook contains many practical suggestions for the group care of the children of working mothers.

Lowenberg, Miiam E. *Food for Young Children in Group Care*. Washington, U. S. Government Printing Office, 1942. 34 p. (Children's Bureau, U. S. Department of Labor. Children in Wartime, No. 14.) 10 cents.

Gives suggestions on feeding children from 2 to 5 years of age who receive the various types of group care.

Meek, Lois H. *Your Child's Development and Guidance—Told in Pictures*. Philadelphia, J. B. Lippincott and Co., 1940. 166 p.

A practical manual dealing with the physical, mental and personality growth of children under school age.

U. S. Office of Education. *Nursery Schools Vital to America's War Effort*. Washington, U. S. Government Printing Office, 1943. 12 p. (School Children and the War Series, Leaflet No. 3.) 5 cents.

Contains information on organization of nursery schools, including a suggested daily schedule.

Home Care of the Sick

See references on home nursing in chapter IV.

School Feeding

See references on Nutrition in Chapter III.

School and Community Sanitation

For references on this subject see your local or State health department.

Clinics

See references on communicable diseases in Chapter II.

General

New York State War Council. *Program of Advanced Training for Volunteer Child Health Aides*. Albany, New York State War Council and the State Departments of Education, Health, Labor, Mental Hygiene, Social Welfare, 1942. (Pamphlet III.) 15 p. Free.

A course for volunteers who have had basic training in child care and wish to give services to agencies concerned with health activities for children.

U. S. Office of Civilian Defense, in cooperation with Office of Defense Health and Welfare Service. Volunteer Service bulletins. Washington, U. S. Office of Civilian Defense, 1942. (Available from local civilian defense volunteer offices.)

Volunteers in Child Care. 17 p.

Volunteers in Family Security. 15 p.

Volunteers in Health, Medical Care, and Nursing. 11 p.

Volunteers in Nutrition. 7 p.

Volunteers in Recreation. 18 p.

These materials outline many community service activities which are appropriate for high-school students as well as adults.

Administration of the Health Education Program

Chapter X

A Plan for Administrative Action

THE WARTIME health education program outlined in the preceding nine chapters has been developed with one purpose in view, that of helping high-school students to become fit for war-related services. This chapter deals with points which should be considered by administrators in putting the program into action.

The administrative provisions necessary to allow each student to make progress toward the six health objectives considered in Chapters I-VI and to receive health preparation for the services as outlined in Chapters VII-IX are:

1. Fixing responsibility so that the health needs of students are met.
2. Providing time and opportunity for health instruction so that young people may learn to take responsibility for themselves in all phases of the health program.
3. Providing examinations and follow-up by which students may learn their own assets and liabilities and receive guidance in correcting defects.
4. Providing school situations which are conducive to development of sound health and safety attitudes and practices.
5. Training personnel to take leadership in health education.
6. Building sound community relations.

Fixing Responsibility

What is everyone's business soon becomes no one's business. In each school *one person should be given the responsibility for coordinating all school health education activities* and for relating them to other health activities in the community. In small schools the principal himself may undertake this task;

in large schools he may delegate this responsibility to someone else. The person so named may be the school medical adviser or nurse, though as more physicians and nurses enter military service it will become necessary to use such personnel only for those tasks which require their specific technical training. The responsible person may be a teacher of health or physical education or home economics. Whoever is chosen as coordinator should work directly as an agent of the principal, who by right of his position, is finally responsible for the school health program.

The minimum qualifications for the work of coordination are four: (1) Some training in health education with willingness to supplement this by further study; (2) a knowledge of school organization and personnel; (3) information as to community resources; and (4) ability to work with fellow teachers and community groups. The person undertaking such work should be given time for the health program. This may be done by reducing his teaching load, lightening the extracurricular demands made upon him, or freeing him from usually assigned duties.

While the leadership in the program should be delegated to one person, the active support of everyone concerned is also essential to its success. A *school health committee* provides an important channel for constructive support and advice. In small schools this committee may be the whole faculty plus a few student leaders and representatives of parent organizations. In urban schools, the committee may be large, including teachers of physical education, health, science, home economics, and in addition, counselors, administrators, school

medical adviser, school nurse, cafeteria manager, custodian, students, parents, representatives of local medical and dental associations, and of public health departments, and many others whose special interest leads them to take an active part in the health improvement of youth. Every effort should be made to enlist the interest of local Selective Service representatives, since they are fundamentally concerned with the health of boys approaching military age. Persons actually in military service and those who know the conditions under which industry, agriculture, and various kinds of community service are carried on, may give valuable advice as to program emphasis.

In addition to this larger committee, many principals may wish to appoint a *smaller planning committee* made up of members of the school staff and health personnel working in the schools who are most intimately concerned with student health problems. The health coordinator, of course, would be an active member of this group. This committee may take major responsibility for reviewing the health needs of the students, school, and community. They should give special attention now to problems which youth face in connection with preparation for or participation in war services. They may make a survey of the school and community facilities for health service and instruction to see what is already being done and how they as individuals or as a group may fill in gaps. They may help plan ways of using the teachers best qualified for the various parts of the program. They may assist the superintendent or principal in planning necessary extensions of activities, curricular changes, and school policies so far as these relate to health. This smaller group will need to work closely with the larger advisory committee at all times in order to benefit by its experiences and utilize its channels for disseminating information on the program.

Providing Time and Opportunity for Health Instruction

Previous chapters of this manual have developed in some detail the teaching and student activities desirable in carrying out a war-time program of physical fitness through health education. The administrator should see that opportunity for these activities is provided in the curriculum. In many schools this will mean a review of time allotments for the whole school day to make sure that adequate time is provided for those activities which are of most value during the war.

Certain aspects of the program, as outlined in the manual, are the responsibility of all teachers; others will require direct health instruction, while still others may be placed in one of several courses as convenience and specialized interests of departments or experiences of teachers dictate.

In general, opportunities for health instruction may be provided in: (a) Special health courses; (b) integrated courses; and (c) units in other courses in the curriculum. Special health courses do not take the place of contributions to health instruction from other courses, nor can such contributions by themselves fill the need for a well-rounded program. When dependence is placed entirely on instruction through other courses some students are likely to miss essential instruction, and important areas of health are apt to be left out of the instruction altogether.

In planning for health instruction, therefore, administrators should make sure that adequate instruction in all important areas of health is available to all students. They should also see that appropriate instruction in line with needs and interests of the students is given at different grade levels. Careful planning together by members of the school staff will assure that significant material is included wherever it may best be placed and that there are not too many gaps or too

much repetition and overlapping. Such joint planning will also help assure that specialized departments or services most effectively share their unique contributions with the whole school.

The needs and interests of students on which health instruction should be based will naturally vary not only with different individuals, but also at different grade levels and in different localities. In general, however, students during the ninth and tenth grades need orientation in the high school health program. They need assistance in analyzing the findings of their own health examinations and in working out plans for personal health improvement. Students during the eleventh and twelfth years not only need to continue in the development of sound health practices and attitudes for their immediate well-being, but also to plan ways of living which will enable them to meet the demands of the future.

Instruction for the ninth- and tenth-grade group should therefore help high-school students solve their own health problems; it should logically contain a large part of the material suggested in Chapters I–VI which includes studies related to the correction of remediable defects, prevention and control of communicable disease, nutrition, accident prevention and emergency care, maintenance of healthful routines, and mental hygiene.

Instruction for the eleventh- and twelfth-grade groups should continue to provide opportunity for checking health progress of the group and for arranging changes in activities and correction of defects. It should in addition present specific health standards and ways of meeting health and safety problems associated with military services on land and sea and in the air, with industry and agriculture, and with community service. It should prepare students in general to be intelligent citizens ready and capable to work for individual, family, and community health improvement. Instruction in these later years

should also offer opportunity for gathering together and synthesizing in terms of students' maturing needs and interests, experiences gained in physical education, science, social studies, home economics, and elsewhere. Chapters VII–IX could form the basis for instruction in the eleventh or twelfth years, but many of the materials in Chapters I–VI should be equally valuable if they are adapted to the expanding interests and changing needs of the older students.

Direct health teaching will be required if these important responsibilities are to be fulfilled. Five periods per week of direct health teaching, or the equivalent, for at least one semester during the ninth or tenth grade will be necessary in order to meet the needs of entering students. Equally urgent is the need for working out a plan whereby every student during the eleventh or twelfth grade receives direct instruction on the points outlined above. Five periods per week for at least one semester during the eleventh or twelfth grade, or the equivalent, will be needed for ample preparation of these students who are more nearly ready to enter adult services.

In departmentalized schools, these periods may be offered as separate courses, or in lieu of one semester of science, biology, or other related subjects. Another possibility already suggested is the carefully planned introduction of units into other courses in such a way that all students are reached with direct instruction on all important phases of the program.

The less frequent but more concentrated periods for health instruction, as for example, twice during a 4-year program, is gaining wide acceptance as being a sounder and more effective procedure than the plan of weekly or biweekly instructional periods given throughout the 4 years.

In schools with core courses or *integrated courses* of various kinds, it should be relatively easy to carry out direct instruction in this wartime program. For example, units

on health may be offered which take a month or 6 weeks during which time almost the full time of the students is concentrated on various aspects of personal, home, community, and military hygiene; basic understanding of human biology; prevention and control of defects and diseases; first aid; and home care of the sick. This fulfills the requirements of a special health course and has additional advantages. Schools with these integrated types of organization have opportunity to arrange for participation in community activities and to reach all students with essential material.

Many basic and significant *contributions to health education* are best made *in the context of courses other than health*. The administrator should expect that now as never before the implications for health will be fully explored by teachers and students of all subject-matter fields. Below are listed the subjects from which most health education values may be expected, with some suggestions as to the contributions from each. Plans should be made so that as many students as possible have access to the unique health contributions which these subjects have to make. Vitally interested teachers will find many ways to supplement and expand the contributions from their specialized fields.

Physical education.—(a) Practice in habits of cleanliness in use of drinking facilities, towels, and showers; (b) motivation to desire to be efficient and vigorous and to seek information as to how to achieve this; (c) incidental and forceful instruction in prevention of certain communicable diseases, the value of medical service, and first aid.

Home economics.—(a) Practice in buying foods, planning menus, preparing adequate meals at low cost, and conserving foods; (b) practice in selecting adequate alternatives for foods which may be less plentiful during war-time; (c) skill in preparing food so as not to lose its food value; (d) use of the school

lunch situation as a learning experience; (e) analysis of individual dietary problems and follow-up of these; (f) home-nursing skills; (g) knowledge of child care and skill in caring for children; (h) knowledge of home sanitation; (i) practice in evaluating new fabrics in terms of warmth and wear; (j) maintenance of home routines that contribute to health; (k) encouragement in sharing family responsibilities which lessen stresses and strains of war.

Biology.—(a) Basic understanding of the causes of communicable diseases and methods of controlling them; (b) study of the medical examination, the meaning of the items recorded, and of the recommendations; (c) basic understanding of the structure and functions of the human body; this should make easier the learning of skills such as: Choice of food, care of vision, disease prevention, accident prevention and first aid, home nursing, healthful routines of rest and activity, care of children; (d) practice in the skills just listed when this is not given elsewhere; (e) understanding essential public health measures—sanitation, safeguarding food and water, quarantine; (f) understanding emotional control and mental hygiene; (g) knowledge of reproduction; (h) knowledge of child growth and development.

Social studies.—(a) Understanding the extent to which accidents, defects, and minor ailments undercut the war effort; (b) survey of local resources for health care, estimation of their adequacy, and planning how individuals may best use them; (c) participation in community campaigns to remedy local deficiencies; (d) clarified understanding of our long-range objectives and our place as individuals in reaching them.

English.—(a) Preparation of materials for use in community projects; (b) study of health problems of the war as background for papers and talks, in class, before the school,

for parents, and for club groups; (c) analysis of advertisements and articles using health motivation.

Other subjects.—(a) Chemistry: Chemistry of foods and nutrition, of disinfectants, of water purification; (b) Physics: Correction of defects in vision; (c) Mathematics: Presentation in vital form of statistics concerning defects, absenteeism in school and industry, and its relation to the war effort.

Some schools give special short courses in first aid and home nursing. These may be given with or without school credit. Often they are given under the auspices of the Red Cross. Where such special courses are not available, study of first aid and home nursing should be assigned to health education classes, physical education, home economics, or biology, with proper adjustment of time allotments.

The administrator should see that appropriate materials relating to health are included in special courses which are offered to help prepare students for specific war services, such as courses in radio, drafting, or welding.

Teaching of health courses should be assigned to the persons on the staff best qualified from the standpoint of health-education training and experience and ability to work with students. Health teachers should be able to call for assistance on other members of the faculty with special competence in the fields of nutrition, physical education, human biology, and social problems. In many instances, administrative adjustments will be required to make this possible. For example, if the home economics teacher is best qualified to teach certain aspects of nutrition, her program should be so arranged as to permit her to give this instruction to all students. Moreover, the facilities of her department should be available to all students when use of them will enrich the instructional activities.

Finding Health Needs and Problems and Providing Follow-Up Procedures

A variety of health needs exists among high-school students, some of which can be discovered best by medical examinations and others through teachers' observation or special tests. A combination of these methods is most desirable in order that the school may: (a) check a student's fitness for participation in strenuous physical activity; (b) discover defects which need correction; (c) discover symptoms of disease; and (d) find health problems which require modification in the student's daily regimen of diet, rest, mental adjustment, or in his school program.

Observation by teachers gives information about students which it is impossible to get in any other way, since teachers see the students every day and can detect early deviations from normal. This observation becomes more important as medical and nursing services in the school decrease. Attention should be paid to color and condition of skin, brightness of eyes, condition of hair, expression, posture, disposition, as well as to the more obvious coughing, frowning, and complaints of headache, nausea, or other ills. A boy or girl showing such signs should be referred to the school medical adviser or nurse, or if these are not available, to a health counselor or administrator.

School administrators and health committees should plan group meetings or individual conferences where teachers may learn what conditions to look for and the significance of what they see. Health educators, physicians, or nurses working in schools, or local physicians may be asked to give such instruction to teachers.

Special tests of vision and hearing are being given by teachers in many schools and teachers can become proficient in these important procedures. Since extra demands are being made on vision by many wartime occupations,

particular attention should be given to annual visual tests so that beginning deviations from normal may be detected. Students with difficulties in vision should be properly seated in the classroom and arrangements should be made for further examination and correction of defects.

Where school medical advisers are available they should give *periodic medical examinations* to students. An examination early in the high-school years will provide ample opportunity for follow-up while the student is still in school. It will also give information on any special protective measures which should be carried out. An examination during the eleventh or twelfth year will help the student determine his fitness for adult services. In all instances the examination should be augmented by the other procedures suggested and by education. Administrators and school committees should consider carefully the unique contributions which a physician can make to a program for physical fitness in an emergency and budget his time carefully.

In many communities physicians and nurses from health departments provide the health services and examinations for school children. Regardless of whether the health services are provided by the school's own health staff or by the local health department staff, there is need for close coordination among all concerned. Schedules for group examinations should be worked out in advance so that the school may help prepare the students for the examination through appropriate educational activities such as those suggested in Chapter I of this manual.

The examination itself will be a waste of time unless provision is made for adequate follow-up leading to correction of handicaps discovered. Health case conferences have proved themselves useful in saving physicians' time and facilitating follow-up. At such conferences the physician meets with members of the school staff who have responsibility for

modifying school programs and making contacts with homes and community agencies, and discusses with them his recommendations for each student examined. In most schools these conferences will include one or more counselors or teachers who act as counselors, an administrator who can approve program modifications, the person responsible for the total school health program, the director of physical education, and the physician and nurse who work in the school.

The health personnel in some schools have found it feasible to work with the private physicians in the community in the giving of medical examinations. In many places local physicians act as part-time medical advisers in schools. In others, parents are asked to take their children to their family physician for an examination each year before the opening of school. In these cases most successful results are obtained when the physicians are provided with forms showing the conditions on which reports and recommendations are desired. By this procedure it is impossible for physicians to participate in health case conferences and discuss their recommendations with school personnel, and this is a disadvantage. It may be compensated for by the added time a private physician may give to an examination, the knowledge he already possesses of the child's history and family background, and the better understanding which may develop between school personnel, family, and the members of the local medical profession.

Individual cumulative *health records and history* should be sent with each student as he goes from grade to grade or from school to school. If this has not been done heretofore no time should be lost in starting a file. These records form an effective means for getting teachers' findings as to health conditions of students before the medical adviser of the school, and in turn serve to acquaint teachers with the findings of medical exami-

nations. In addition, records give medical advisers and teachers a picture of a student's background and health history against which his present condition can be evaluated. They may be used effectively in securing cooperation of parents.

Ideally health records should be a part of the general records kept of all students, designed to give teachers and administrators

Record of communicable diseases and immunizations

Record of operations, accidents, hospitalization, and prolonged health difficulties

Record of work outside of school, special lessons, clubs, or hobbies which demand time, usual hours of sleep, etc.

Record of extracurricular activities

Periodic visits to the dentist for preserving dental health.



better understanding of the human beings with whom they are dealing. The health sections should include:

From student and parents—

Record of history of growth and nutrition

From the school—

Reports of teachers' observations of health and attitudes toward health procedures

Results of vision and hearing tests

Growth records

Attendance and causes of absence

Medical examination findings

Recommendations made to parents, students, and school authorities.

Records of correction of defects or modification of routines should be filed where they are accessible to all teachers, and teachers should be held responsible for using them. Special faculty meetings or small group meetings could well be devoted to informing teachers as to the contents of the records and the significance of the various items in their dealings with students. All such information should, of course, be considered confidential and be used only for the benefit of students. Principals will find that if they develop with their staff a professional attitude toward student problems there will be less and less information about students which must be kept in private files.

From these individual records summarizing records may be made which show the number of students in the school who are free from remediable health defects.

Follow-up of health problems usually involves one or more of the following procedures: (a) Medical, surgical, or dental treatment as required for defects such as decayed teeth and poor vision; (b) provision of health necessities, such as food, clothing, or improved home care and supervision; (c) changes in such routines of living as choice of diets, care of vision, hours of sleep, and activity; (d) program adjustments, including provision for lip-reading instruction, speech correction, modified physical education programs, or a shortened school day.

For many of these, high-school students are capable of carrying full responsibility. In a previous section of this chapter the desirability of direct health teaching is discussed; this provides effective means of educating students as to their own shortcomings and methods for bringing themselves up to the highest standards possible for them as individuals. Med-

ical, surgical, and dental correction of defects is the responsibility of the home or, when this is inadequate, of the community. Nurses working in schools or other members of the school personnel should discuss with families the results of examinations and help them obtain the care of community clinics or private physicians.

Special attention should be given to discovering and hospitalizing cases of tuberculosis since this disease occurs frequently among high-school students and invariably incapacitates the individual for vigorous military programs. While the rehabilitation of the infected person will require a long period of time, it is quite possible by tuberculin and X-ray programs to find cases and prevent their infecting others.

The school should cooperate with any other testing and immunization procedures recommended by local health authorities. Epidemics almost invariably accompany war and the school must be ready to meet emergency needs.

Making program adjustments possible is the responsibility of the school alone. This means that modified instruction in physical education must be provided; it means further that the school must provide instruction in special skills such as lip-reading; that rest rooms with appropriate supervision must be available for students who need rest during the school day; and that teachers know how to conserve hearing and eyesight. Most of all it means a flexible attitude on the part of administrators, a realization that school schedules are made for students and not the reverse, and that rest periods or even trips to the dentist are legitimate parts of the education and of the school day of certain students.

Additional follow-up procedures are needed in this war period. Guidance in the light of health status and needs should be given to students who are seeking to qualify for particular wartime services. There would be no

point, for example, in encouraging a boy with a marked visual or hearing handicap to study to be a member of an air crew, and there would be every reason for giving careful guidance to an underweight and nervous girl who is considering an industrial job.

meeting a large part of the responsibility when they make sure that students work only with responsible individuals or agencies, that they work only in places where conditions are sanitary and their health is safeguarded and that their working hours are not too long.

The school lunch. An essential part of the total health program.



Most high-school students today are working outside school in production or community services. Teachers need to observe students for the effect of the extra load on students' health. The school administrator stands between the young people in his school and unscrupulous adults who may exploit their idealism and strength for selfish ends. While details will vary from community to community, teachers and administrators can feel they are

Providing a School Environment Conducive to Health

The present and future health of high-school students depends partly upon protecting them from accidents and disease. Crowded conditions in school shops makes necessary more than usual vigilance in maintaining safeguards there. More time devoted to physical education makes it essential to bring up to date health and safety policies re-

garding provision of play equipment, showers, and lockers.

Sanitary school equipment such as toilets, drinking fountains, wash bowls, towels and soap, and sanitary maintenance in general will need special attention because of depleted custodial personnel and the inevitable diverting of attention to more spectacular services.

Control of the emotional atmosphere and other mental hygiene measures are more important during war than during peace. These include keeping teachers, so far as possible, from becoming overstrained and fatigued. Schedules should be set up which are flexible and do not place unnecessary pressure on students or teachers. Perhaps most important of all, administrators and teachers should place emphasis on the kinds of action through which young people, individually or as a group, can contribute to the successful prosecution of the war.

The *school lunch* is an essential part of the total health program of the school. There students practice the selection of food and develop good or poor dietary habits. This is truer now than ever for many parents are working away from home. The school administrator, lunchroom manager, and representatives from teacher-parent and student groups, together can plan ways to make the school lunch meet the food needs of students and contribute as well to a well-rounded educational program.

While it is probably possible for school lunchrooms to pay the major part of their expenses, they should not be expected to make money for the school or for private agencies. This means they should be under the supervision of a trained home economist or a nutritionist responsible to the school and should not be run by commercial organizations. Food handlers in the lunchroom, whether they be students working part time, parents, or hired cooks and waiters, should meet all of the standards set by the health departments

for such work. In addition, storage, refrigeration, dishwashing methods, and facilities should be adequate.

The lunchroom should be pleasant, clean, and free from confusion. When schools are crowded, two or even three staggered lunch periods may be a better arrangement than one period in which students must spend a large part of the time standing in line. The time actually allowed for eating should be about half an hour. If most of the students go home for lunch the length of the lunch hour should be determined by the time it will take them to go and return with sufficient time allowed for eating. If most of the students eat lunch at school, the lunch hour may be shorter and special arrangements should be made for those going home. Place should be provided for students who bring their lunches to eat with the other students.

Schedules may be adjusted to enable students to gain first-hand experience in planning menus, purchasing and storing food, preparing and serving lunches, and keeping records of costs.

Principles which should govern the school lunch program have been developed recently by the Cooperative Committee on School Lunches, a group consisting of representatives of several Federal agencies and the National Congress of Parents and Teachers. These principles are:

1. Every pupil should have an adequate noon lunch at home or at school.
2. The school lunch should be made an educational experience for the pupil.
3. School officials are primarily responsible for initiating, promoting, operating, and administering school lunch programs.
4. The school lunch should be provided in whole or part without cost to the pupil who cannot pay.

High-school students should be given opportunity to share actively in the provision of a

healthful school environment. Through participation, supplemented by study, they may gain experiences which will form a valuable part of their education for health.

Training of Personnel

It has been repeatedly stated in the foregoing pages that health of young people is so essential at the present time that the best trained persons on each faculty should devote their time to the problem. Ideally, these persons will have studied: The function, structure, and nutrition of the body; emotional adjustments; elements of the commoner pathologic processes; elements of disease prevention; social and economic problems relating to health of individuals; elementary public health; environmental sanitation. However, many administrators will not have specially prepared health educators available. In this case they should insist on, and make provision for, the persons chosen getting additional preparation at the earliest possible time. This preparation may include:

- (a) Consultation with members of the faculty with better training in particular fields than their own.
- (b) Working with supervisors in health and specialized fields such as nutrition and science, and with trained community health workers.
- (c) Apprenticeship work in some community health project, as, for example, in cooperation with the public health department.
- (d) Reading recent publications in various fields.
- (e) Working and studying informally with other faculty members in group meetings with the aid of technical consultants.
- (f) Working in extension courses and in-service courses.

Administrators can write to nearby colleges and universities asking what courses are being

offered in extension or summer school and offering suggestions as to those they would like to have available for their teachers. Credit toward professional advancement and increased salary schedules should be given for in-service preparation for this school service on an equal basis with that given for courses and work leading to higher degrees.

Community Relations

No activities of the school can be thought of apart from those of home and community. This is particularly true in the field of health education. Now as seldom before the whole Nation is appreciating the importance of good health in young people. It is a time for all interested individuals and organized groups to work together. Representatives of the parent and professional groups may be asked to act on the school health committee. Administrators, teachers, health personnel, and students may work on community projects designed to meet special local problems and to further the welfare of all. Information about the health of young people in school may rouse the public, including the various services, political and professional groups to provide needed clinic and recreational facilities.

Many illustrations have been given in the previous pages of this manual regarding ways in which the school may have a part in health matters of community-wide significance. Suggestions are given here for the contribution which communities can make toward preserving and improving the health of high-school students.

1. Legal permissions.

- (a) Money must be found to develop a school health program. The school levy. Federal appropriations for public health work or maternal and child health service under the Social Security Act Titles V and VI, local health department funds, and funds from local councils of Civilian

Defense are possible sources. Local expenditures for salaries of physicians and nurses, first-aid equipment, biological supplies, and textbooks may thus be made provided laws permit them. Investigations should be made in each community to determine these possibilities.

- (b) Attorneys for boards of education must be certain of their ground with reference to State quarantine and vaccination laws and laws describing the relation of the local public health officer to school health programs. The provisions and limitations of the law should be familiar to each school attorney, board members, and administrator.

2. Boards of education.

- (a) Boards should provide funds for salaries of teachers necessary to do the job of health education and in those States where school health services of physicians and nurses are the responsibility of the schools, funds for these salaries should be provided. In States where the responsibility for health services rests with State and local health departments, boards of education should cooperate with the health authorities and make certain that there are staff members whose responsibility it is to coordinate the programs of the two agencies.
- (b) Boards should support the superintendent in his efforts to revise the curriculum to include health instruction. If the school day is crowded, adjustments will be necessary in order that the health program can have elbow room.

3. Local health departments.

- (a) Local boards of health, health officers, public health nurses, and other health staff members have a contribution to make to the school program. As stated previously, in many communities, the schools depend entirely upon the local

health department for medical, nursing, and sanitary engineering services.

- (b) State and local laws should be examined to determine the possibilities and limitations of such service and the boards of health and boards of education should work out a joint program of action leading to the development of the health education program. Although services which health departments can give will vary with communities, all should work with schools in the determination of the most significant health problems which education can help to solve.
- (c) The health department, regardless of whether or not it has primary responsibility for the school health service program, should make its technical services available to schools for consultative services on technical health matters, and for in-service teacher training.

4. Individual and group assistance.

The school can use the help of interested people and organized groups and clubs.

- (a) Local tuberculosis societies, civic service clubs, women's clubs, Legion posts, and others could find no better use for their funds than to supplement the school budget in the purchase of equipment of all kinds and the acquisition of needed personnel or services.
- (b) Medical and dental societies could well study the school health needs and construct carefully considered programs of assistance.
- (c) Local groups interested in safety such as safety councils, traffic divisions of police departments, automobile clubs, and the local chapters of the American Red Cross, could provide their services and materials for educational purposes.
- (d) The Parent-Teacher Association will find vital and interesting projects for continuous work in the study of the preven-

tion of school epidemics, the use of the leisure time of youth, the correction of remediable handicaps, the school-nutrition program, the education of children for parenthood and marriage, homemaking, and the health of teachers and parents themselves. The opportunity for study and action by such a group is unlimited.

- (e) Local Civilian Defense Councils, or more specifically, the Civilian Defense Volunteer Office, can supply volunteer workers for playground, school feeding, or other essential health services in which volunteers can participate. These offices will also help arrange for training of high-school students who wish to prepare themselves for volunteer community services.
- (f) In many communities those unable to pay the full cost of medical and dental care may have difficulty in caring for the remediable handicaps of their children. Local hospitals, clinics, and public health or welfare services will frequently provide this sort of service. If such problems exist in the community, a program of care should be administered and financed by community groups or public agencies. Schools should take the initiative in stimulating the development of such a program.
- (g) If an advisory Victory Corps Council representing the school and community interests are brought together, a subcommittee of this group comprised of representatives of all official and volunteer organizations interested in health could well be formed to study, plan, and coordinate the many details of the physical fitness program.

5. Parent action.

In the last analysis enlightened parental support of this school health program is fun-

damental. The school can do next to nothing without a close and understanding working relationship with the home.

- (a) Parents should inform themselves completely on just what it is the school is planning to do about the health of their boys and girls. Likewise, parents should be informed of what the Army and the Navy are finding out about the health status of youth in this country.
- (b) Parents should visit the school frequently enough to understand what goes on and under what conditions schools are run.
- (c) The correction of handicaps or defects discovered either at school or by the family physician will depend for the most part upon parental action. Parents should seek early and thorough correction of all adverse conditions.
- (d) Parents can lend encouragement to students in the practice of health activities learned in school by planning meals and providing rest, home entertainment, medical care, and informed discussion of current health problems.
- (e) Parents should observe to the letter quarantine regulations and other directions given about disease control not only in order to hasten the recovery from disease of their own children but to protect others in this time of war.
- (f) Parents should maintain a home atmosphere of courage and fortitude in time of war, facing the war realistically and with high morale. Young people are impressed with the attitude of older ones and with what is taught by example to maintain poise in time of danger and sorrow, to abide by civilian regulations for the safety of all, and to cooperate fully with the efforts of the government to win the war.

In this war period, as in times of peace, the schools themselves have a great opportunity, as well as an unquestionable responsibility, for establishing programs of action in cooperation with homes and with community groups. Joint action, carefully planned, will result in improved health of all students.

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A story of medical services in a variety of fields which gives also a picture of progress in meeting human health needs.

——— *Nurses at Work*. New York, Harper and Bros., 1939. 57 p.

Health needs and services are pictured in this book which describes the work of nurses in private practice, doctors' offices, public health work, and hospitals.

Stewart, Ernest I. *Attention! To Your Health*. New York, Bureau of Publications, Columbia University, 1941. 82 p. 35 cents.

A very readable booklet for the future selectee which should also be of interest to other high-school students.

Thomen, August A. *Doctors Don't Believe It—Why Should You?* New York, Simon and Schuster, 1941. 384 p.

Facts and fallacies about health with practical guidance for the layman.

Turner, C. E., and McHose, Elizabeth. *Effective Living*. St. Louis, Mo., C. V. Mosby Co., 1941. 432 p.

Williams, Jesse F. *Healthful Living*. New York, The Macmillan Co., Revised, 1941. 622 p.

For Teachers and Administrators

American Council on Education, American Youth Commission. *Youth and the Future*. Washington, D. C., The Council, 744 Jackson Place, NW., 1942. 296 p. \$2.50.

Chapter XI entitled "Health and Fitness" analyzes the health status of youth and outlines society's responsibilities for improving youth's health.

American Public Health Association. *Community Organization for Health Education*. A committee report. New York, The Association, 1790 Broadway, 1941. 129 p. 9 cents.

This is a record of experiences in many communities of the United States where community organization in health education is moving forward.

Bigelow, Maurice A. *Health Education in Relation to Venereal Disease Education*. New York, American Social Hygiene Association, Inc., 1941. 32 p. 25 cents.

Outlines current practices and points of view in respect to venereal disease education throughout the country.

Chenoweth, Lawrence B., and Selkirk, Theodore K. *School Health Problems*. New York, F. S. Crofts and Co., 1940. Second edition. 419 p.

Ciocco, Antonio; Klein, Henry; and Palmer, Carroll E. *Child Health and the Selective Service Physical Standards*. Washington, U. S. Government Printing Office, 1941. 11 p. (U. S. Public Health Service, Reprint No. 2338.) 5 cents.

The physical status of selectees as observed 15 years ago in school and today in examination for military duty.

Diehl, Harold S. *Healthful Living*. New York, Whittlesey House, McGraw-Hill Book Co., Inc., 1941. New edition revised. 499 p.

A guide on the subject of health, suitable for teachers.

Dieuaide, Francis R. *Civilian Health in Wartime*. Cambridge, Mass., Harvard University Press, 1942. 328 p. \$2.50.

A book written for the layman which sets forth health problems the Nation confronts in wartime.

Emerson, Haven. *Alcohol and Its Effects on Man*. New York, D. Appleton-Century Co., 1934. 114 p. Student edition, 1936. 128 p.

A standard reference book on the subject.

Fitness for Freedom. Survey Graphic, 31: 99-176, March 1942.

A series of articles on health in wartime.

Hiscock, Ira V., with the collaboration of Connolly, Mary P; Delavan, Marjorie; Patterson, Raymond S., and Warthen, William H. F. *Ways to Community Health Education*. New York, The Commonwealth Fund, 1939. 306 p. \$3.

National Education Association and American Medical Association, Joint Committee on Health Problems. *Health Education*. Washington, D. C., The Association, 1201 Sixteenth Street, NW., 1941. Second revised edition. 368 p. \$1.50.

A guide for teachers in elementary and secondary schools and for institutions for teacher education.

National Headquarters Selective Service System. *Analysis of Reports of Physical Examination*. Washington, D. C., National Headquarters Selective Service System, 1941. (Medical Statistics Bulletin No. 1). 31 p.

Summary of data from 19,923 reports of physical examinations made prior to May 31, 1941.

National Youth Administration and U. S. Public Health Service. *The Health Status of NYA Youth*. Washington, U. S. Government Printing Office, 1942. 77 p. 25 cents.

Office of Defense Health and Welfare Services, Nutrition Division. *Democracy Means All of Us*. Washington, D. C., Office of Defense Health and Welfare Services, 1942. 30 p. Single copies free from Nutrition and Food Conservation Branch, U. S. Department of Agriculture, Washington, D. C.

How communities can organize to study and meet community needs with special suggestions for developing nutrition programs in wartime.

Olesen, Robert. *Personal Hygiene*. Washington, U. S. Government Printing Office, 1942. 46 p. (U. S. Public Health Service Supplement No. 137.) 10 cents.

A compact and understandable pamphlet which deals with important facts about personal hygiene.

Otto, Henry J., and others. *Community Workshops for Teachers in the Michigan Community Health Project*. Ann Arbor, Mich., University of Michigan Press, 1942. 303 p. \$2; paper, \$1.50.

This publication describes a pioneering experiment with four community workshops in which use of community resources was given major emphasis.

Rice, Thurman. *Living*. Chicago, Scott Foresman Co., 1940. 464 p.

A reference book on personal hygiene suitable for teachers.

Rogers, James F. *Safety and Health of the School Child*. Washington, U. S. Government Printing Office, 1937. 29 p. (U. S. Department of the Interior, Office of Education Pamphlet No. 75.) 10 cents.

A self-survey of school conditions and activities.

——— *What Every Teacher Should Know About the Physical Condition of Her Pupils*. Washington, U. S. Government Printing Office, 1936. 30 p. (U. S. Department of the Interior, Office of Education, Pamphlet No. 68.) 5 cents.

Gives instructions on how to observe students for deviations from normal health.

Rugen, Mabel E. *Growing Healthfully for Total Fitness*. New York, National Tuberculosis Association, 1943. 16 p. Free from local and State tuberculosis associations.

Presents fundamental concepts of various phases of growth and health, and suggests topics for class discussion and things to do at three grade levels, including the high school.

Steinhaus, Arthur H., and Grunderman, F. M. *Tobacco and Health*, Some Facts About Smoking. New York, Association Press, 1941. 48 p.

Strang, Ruth M., and Smiley, Dean F. *The Role of the Teacher in Health Education*. New York, The Macmillan Co., 1941. 359 p.

A guide for teachers on methods and procedures in health education.

Turner, Clair E. *Principles of Health Education*. Second edition. Boston, D. C. Heath and Co., 1939. 335 p.

U. S. Department of Commerce. *Small Town Manual for Community Action*. Washington, U. S. Government Printing Office, 1942. 46 p. (Industrial Series No. 4.) 5 cents.

U. S. Office of Education, Information Exchange. *Education in Wartime*, Free Loan Packets. Washington, D. C., Information Exchange, U. S. Office of Education.

V. Wartime Health Problems and Programs.

The Problem..... V-G-1

Malaria..... V-G-2

The School's Contribution..... V-ES-1

Organization for Community Action.... V-A-1

Other packets deal with nutrition, victory gardens, and other war problems. Write for complete list. You may order two packets at a time. Franked envelope is enclosed for return of materials.

Williams, Jesse F. *Personal Hygiene Applied*. Philadelphia, W. B. Saunders Co., 1941. Seventh edition, revised. 529 p.

A standard reference book on the subject, suitable for teachers.

Journals

Education for Victory, U. S. Office of Education. Washington, U. S. Government Printing Office. \$1 a year.

Hygeia, American Medical Association, Chicago. \$2.50 a year.

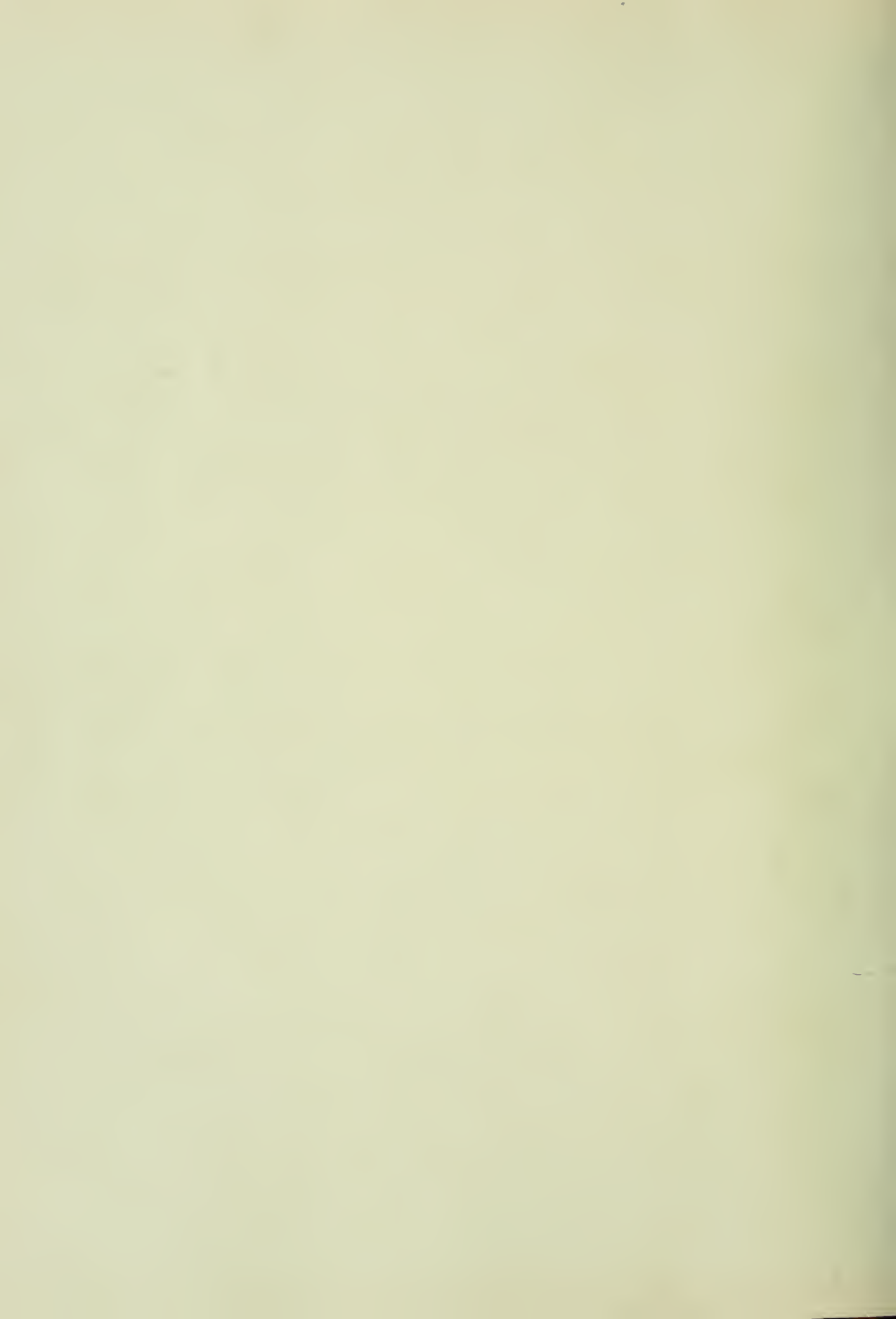
The Allied Youth. Allied Youth, Inc., Washington, D. C., National Education Association Building. \$1 a year.

Consumer's Guide, U. S. Department of Agriculture, Washington, U. S. Government Printing Office. 50 cents a year.

For sale by the Superintendent of Documents, Washington, D. C. . . . Price 20 cents

★ It is expected that additional copies of this pamphlet may be needed by many high schools. They may be secured from the Superintendent of Documents, Washington, D. C.

U. S. GOVERNMENT PRINTING OFFICE
WASHINGTON . . . 1943





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Guidance Manual

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for the HIGH-SCHOOL VICTORY CORPS

TEACHERS DEPARTMENT
TEACHERS DEPARTMENT

U.S. Office of Education

VICTORY CORPS SERIES

PAMPHLET NUMBER 4

Federal Security Agency PAUL V. McNUTT, Administrator

U. S. OFFICE OF EDUCATION . . JOHN W. STUDEBAKER, Commissioner



Guidance Manual

for the **HIGH-SCHOOL VICTORY CORPS**

(2)



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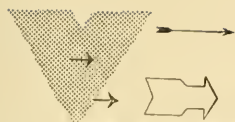
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CIVILIAN AVIATION

FRANK A. TICHENOR, Chairman of the Aeronautical Advisory Council, Department of Commerce, Publisher "Aero Digest."

Director—**A. L. THRELKELD**



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FOREWORD



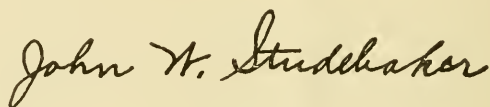
THIS "GUIDANCE MANUAL" is presented to assist school administrators, counselors, and teachers in carrying out the guidance functions essential to the organization of the High-School Victory Corps in all types of secondary schools.

It is well understood that many schools have personnel and procedures already carrying on guidance functions in a comprehensive manner. For these schools most of this manual may serve best as a check list. The fact, however, that the program suggested has been devised specifically for wartime may make certain items of more value than would otherwise be the case.

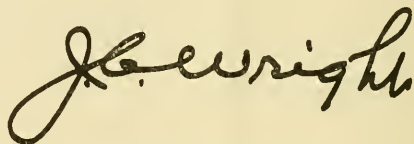
At the other extreme may be schools with no experience in guidance work. For these some simplification of suggested procedures may be necessary, each adaptation to conform to local limitations. For these schools it is hoped some assistance through in-service training may be provided by the State department of education concerned.

The Manual was written by a committee composed of R. Floyd Cromwell, Supervisor, Educational and Vocational Guidance, State Department of Education, Baltimore, Md.; George E. Hutcherson, Chief, Bureau of

Guidance, State Education Department, Albany, N. Y.; S. Marion Justice, Supervisor, Occupational Information and Guidance, State Department of Public Instruction, Raleigh, N. C.; and R. H. Mathewson, Supervisor, Youth Personnel Services, State Department of Education, Hartford, Conn. These men were assisted by Royce E. Brewster, Walter J. Greenleaf, and Franklin R. Zeran, of the staff of the Occupational Information and Guidance Service, Vocational Division, U. S. Office of Education. The entire project was under the direction of Harry A. Jager, Chief, Occupational Information and Guidance Service.

A handwritten signature in cursive script, reading "John H. Studdaker".

U. S. Commissioner of Education.

A handwritten signature in cursive script, reading "J. C. Wright".

Assistant U. S. Commissioner for
Vocational Education

I. THE PLACE OF THE GUIDANCE PROGRAM IN THE HIGH-SCHOOL VICTORY CORPS

THE IMPORTANCE of guidance in the Victory Corps program is indicated by the two following quotations from Pamphlet No. 1 of the Victory Corps series:

In a total war it is of utmost importance that each person be engaged in that task in which he can make the most effective contribution to the war effort. Never before have those who are responsible for the guidance of youth been faced with a greater challenge. Guidance as it exists in a peacetime program cannot meet the critical needs of the hour.

In framing the proposals in this publication there has been full recognition of the problems of guidance which the Victory Corps program implies . . .

Because of the multitudinous details of information needed to counsel youth wisely in these days, there is no escape from specialization of guidance personnel if the job is to be well done. The establishment of a Victory Corps as proposed in these pages may well serve to make pupils and teachers and school board members more sensitive to the guidance problems involved in manpower recruitment in wartime.

This Manual contains suggestions designed to assist school administrators in inaugurating and carrying on a program of guidance which will help make the Victory Corps program more effective.

The Victory Corps is an emergency organization, with specific objectives. A guidance program is required, therefore, which serves its basic objectives in the quickest and most economical manner in terms of time, money, and personnel. This statement has two implications: First, any guidance program now existing in a school should on the one hand be utilized to its full capacity to serve war aims, and, on the other, yield in any points

which may be judged unessential. Second, where no program exists, or one inadequate to serve war purposes, an emergency program should be set up at once.

Essential Services

The High-School Victory Corps proposes the following services as essential:

1. A reliable record of the individual characteristics of each pupil, as they relate to his usefulness in winning the war.
2. Comprehensive information about critical services and occupations requiring a type of manpower to which the present and future efforts of school pupils may be directed.
3. A counseling program which will help the pupil to fit himself into appropriate training for and participation in the war effort.
4. A practicable plan, within the means of any school regardless of size or resources, for providing these three services, and the related supplementary activities.

In suggesting details of the above program, the following principles of guidance are observed by the Victory Corps:

The war will be served best if each individual so far as possible undertakes civilian or military participation—

1. In accordance with his abilities, aptitudes, and interests.
2. Equipped with sufficient strength and maturity for the type of service he chooses.

3. At the highest level of attainment of which he is capable, at a task of which the Nation has need.
4. Trained to serve in a field which, within limitations imposed by the emergency, has been the result of his own choice.
5. With the personal knowledge that he possesses *no inherent disability* to carry out his choice of service, and has *certain positive characteristics* which promise success.
6. As a unit in a farsighted, well-balanced distribution of manpower which is based on over-all facts rather than on one-sided campaigns to serve a single war interest.

The above criteria apply equally to the prospective aviator, farmer, engineer, nurse, marine, welder, typist, or radio operator, and to all pupils in choosing their courses of study or their forms of volunteer community service.

Experience warrants one or two cautions of a general nature as the wartime guidance program is being worked out. A school, for instance, will not secure the full benefit of its wartime guidance program unless administrative and instructional provisions are geared to the facts made available by the guidance procedures. For example, the permanent enrollment of a pre-flight aviation course should be composed of pupils who have passed through guidance procedures to establish their minimum physical and mental qualifications. Or to give a more general case, teachers can scarcely be expected to profit by the services the guidance program can render unless they have had careful orientation in its scope and purpose, even to the point of volunteering assistance in those aspects of the program beyond the power of the staff officially designated for wartime counseling.

A second caution relates to the danger of overextending the responsibilities of the guidance program. For instance, the wartime

counselor would help an individual whose low morale revealed a problem during a counseling interview. On the other hand the morale of the school as a whole construed as a problem of attitude toward the war would require united faculty action rather than be regarded as the duty of the counseling staff to solve. Again, the wartime counselor may assist pupils to make choices of training for or participation in various special aspects of war service. But solving the many administrative questions which thus arise, such as scheduling new classes, or securing desirable balance in Corps divisions, is not a guidance problem. The wartime counselor should be asked to solve them only if he happens to be also a school administrative officer who normally has such responsibilities. It is seldom desirable to add administrative ability to the critical list of qualifications required of a counselor. Moreover, if he is loaded with miscellaneous duties, his counseling duties are bound to suffer. The counselor's relation to administration will lie most usefully in his ability to furnish relevant facts about pupils and about wartime services and occupations to the rest of the school staff.

Among schools eager to adopt the Victory Corps program will be many which, chiefly because of size, find themselves unable to organize the complete program suggested in Victory Corps Series Pamphlet No. 1. These schools will find their difficulties recognized in the attack on the guidance problem suggested in this pamphlet. Even minimum provisions, conscientiously carried out, will be found of distinct value in promoting the war effort.

One further consideration will enter into the balance when a school is deciding whether to make the effort necessary to carry out the wartime guidance program. In the event that the war ends tomorrow, every principle and practice adopted in the guidance program

remains valid in the peace program of the school. It will prove perhaps even more useful as the school plans its adaptation to the bewildering pattern of civilian and military demobilization and the long-term design of education in the post-war world.

Finally, the material in this pamphlet is presented as proposals for adaptation in States and localities as State policies and local conditions may require. However, in any review undertaken for adaptation, educational authorities may well consider that the committee that prepared the material was drawn

from several States including almost every variety of educational pattern. This committee tried to envision both urban and rural conditions in large and small schools. It may be assumed, then, that questions of practicability and school policy have been scrutinized realistically. It is hoped that every school will find that all fundamental suggested procedures are well within its power. When the object is to win a war, more than usual effort is justified in initiating proposals ordinarily beyond easy realization.

II. MAKING THE PUPIL INVENTORY

IN HIS MAIN TASK of guiding youth of the High-School Victory Corps into various types of war training and war service, the wartime counselor will find indispensable some sort of a *Pupil Inventory* which will provide a simple and convenient index of pupil characteristics as related to various types of war activities and services inside and outside the school.

The *Pupil Inventory* is based upon essential items of information concerning the individual pupil, such as, scholastic aptitude, vocational courses and experiences, physical characteristics, that will facilitate the entry of the pupil into one or another war service activity appropriate for that pupil.

Need For The Pupil Inventory

The need for the pupil inventory in the Victory Corps and wartime guidance program and the uses to which it may be put may be summarized as follows:

1. An important wartime task of the high school will be the identification of pupils with requisite abilities and qualifications for advanced training in occupations directly related to the war effort, e. g., engineers, nurses, chemists, doctors, teachers, other professional workers, and potential officer candidates. The *Pupil Inventory* will provide an effective scheme for this purpose.
2. Through the High-School Victory Corps, youth in junior and senior classes will prepare for specialization in the different types of war effort, according to ability, interest, and previous experience. Referral to the *Pupil Inventory* will indicate:

- (a) Those youth fitted to benefit from the instruction provided in various types of courses, preparatory to military or civilian war service or specialized training.

- (b) Those youth possessing characteristics requisite to various types of training and service demanding more exacting qualifications, e. g., those students meeting the physical requirements of the Army Air Forces.

3. The direct aid which high-school youth can render to the war effort through part-time employment is far from negligible. The *Pupil Inventory*, through some convenient classification device, can show those youth available for different forms of part-time employment, work experience, and volunteer services.
4. Through its index system, the *Pupil Inventory* can provide the names of youth exhibiting special characteristics of particular value to the war effort, e. g., leadership.
5. In the eagerness of youth to serve the war effort and enter into the activities of the Victory Corps, those most enthusiastic may be inclined to attempt a program beyond their strength and maturity. By means of the check provided through a *Pupil Inventory*, a record of the activities in which high-school students are engaged may be maintained and guidance can be given to individuals which the record reveals are "overdoing." Similarly, those who do not seem to be contributing up to capacity may be encouraged to undertake additional activities reasonably in line with their ability.

6. With some knowledge of the most critical manpower needs in the Nation, State, and locality (see Section II on War Service Information), the counselor may match these war service needs with the potentialities and powers of high-school students as disclosed through the *Pupil Inventory* and help youth direct their efforts into those channels where they may make the greatest contribution.

Items of Individual Information on Which the Pupil Inventory Should Be Based

Every school will have available, or may easily obtain, a few simple items concerning individual characteristics from which a war-time *Pupil Inventory* may be developed. The following may be considered as basic for the development of the *Inventory*:

1. Scholastic aptitude as measured by:
 - (a) Average of marks during the secondary school period.
 - (b) Rank of the individual in his class, expressed as a numerator over the total number in class as a denominator, e. g., 6/375.
 - (c) Marks in specific major subjects, particularly English, social studies, science, mathematics, and subjects of vocational application during the senior high school course.
2. Major fields of specialization in senior high schools, both in academic and extracurricular activities.
3. Record of avocational or vocational experiences.
4. Record of occupational interest or intention.
5. Physical condition:
 - (a) General physical condition; freedom from sickness, as measured by days absent on account of sickness.
 - (b) Known physical handicaps or disabilities.
 - (c) Height, weight.
 - (d) Vision, hearing (as indicated on health chart).
6. Some notation of important personal characteristics of the individual, including character, habits, motivation, and capacity for leadership.

Additional Items of Value in Making the Inventory

Although not all high schools may be able to provide the following items of information on pupils, it will be desirable wherever possible to incorporate one or some combination of them into the individual inventory:

1. Individual scores on achievement and aptitude tests.
 - (a) General achievement test batteries covering several major subjects of high-school grade.
 - (b) Specific achievement tests in single subjects of particular significance.
 - (c) Aptitude tests, such as mechanical, clerical, manual dexterity.
2. Some measure of mental ability (preferably based on at least two scores).

Constructing the Pupil Inventory

Since it will be devised mainly for the convenience of the counselor, the *Pupil Inventory* should, above all, be simple and workable. It should be so designed as to fit readily into the existing scheme of pupil recording. It should begin with high-school juniors and seniors, but as soon as possible should be extended to include all pupils of the school.

A determining factor in developing an effective type of *Pupil Inventory* will be the extent and scope of the cumulative record already operative in the high school.

If the school's records are meager, the war-time *Pupil Inventory* will have to make provision for the collection of those items of

information ordinarily available through a good cumulative record, and essential now to any realistic guidance of youth into war services and activities.

If, on the other hand, the school already has a rather complete record of pupil characteristics (such as those listed in the preceding section), the *Pupil Inventory* for war-time purposes need only constitute some efficient means of rearranging, classifying, and labeling the data already entered upon the cumulative record cards or folders.

In the sections immediately following, procedures are suggested for making *Pupil Inventories*: (1) In schools with incomplete or no cumulative record systems; (2) in schools with more or less complete cumulative record systems.

A Wartime Pupil Inventory for a School Having an Incomplete Cumulative Record System

In a school with meager records, some of the items listed as essential for the construction of a pupil inventory may be lacking. In this case it will be necessary to collect this information in suitable form.

The following items indicated on the card may be filled in by the pupils themselves under the direction of a classroom or home-room teacher, thus relieving to some extent the recorder's task:

Name.	Place of birth.
Phone.	Curriculum.
Address.	Occupational interest.
Date of birth.	Hobbies.

Extracurricular activities.

Part-time or summer employment record.

Subjects liked.

Subjects disliked.

Such a card will bring together in efficient and convenient form the basic items of individual information essential to the wartime guidance of pupils.

Although the meaning of the individual items on this card will be clear to most counselors, the following definitions of selected items will clarify their use.

Definitions of Selected Items on Pupil Inventory Card

(All records subject to change should be made in pencil. Numbers in the left-hand column refer to numbered items on the *Pupil Inventory* card.)

8. Curriculum: The program of study in which the pupil specializes or "majors," e. g., college-preparatory; commercial or business; scientific.
9. Occupational interest: Major occupational interest or intention expressed by pupil; preferably after careful study and counseling.
10. Hobbies: Leisure-time activities having possible vocational interest or application. Emphasize hobbies resulting in *completed* projects, of considerable duration, and calling for developed skill or leadership.
11. Extracurricular activities: School activities other than scheduled studies carried on during current school year. Select the one or two of greatest significance only. (See No. 10.)
12. Part-time and summer employment record: Record of paid employment.

Kind of work performed: Specific title or name of job: not "store work" but "sales clerk in drug store"; not "factory" but "drill press operator"; not "garage" but "garage mechanic's helper" or "car cleaner and polisher."

Inclusive dates: Date started on job: Date finished.

Wages: Designate whether per hour, day, week, or month.

15. Record grades: Indicate grades according to school-marking system: 1, 2, 3, 4 years means the number of years the subject has been carried.

War program courses: Those specialized courses given as a definite part of the school's Victory Corps and war program, involving regularly scheduled period and credit, e. g., preinduction courses in radio, aeronautics.

For this purpose the following special wartime pupil inventory card may be utilized:

1. Name:		2. Phone:	
(Last)	(First)	(Middle)	
3. Address		4. Date of birth:	5. Place of birth:
(Street and number)		(City or town)	(State)
6. Physical defects:			
7. Results of physical examination (if given):			
8. Curriculum:			
9. Occupational interests:			
10. Hobbies:			
11. Extracurricular activities (include honors received):			

12. Part-time or Summer Employment Record:

Name and address of employer	Kind of work performed	Inclusive dates	Wages	Did you like the work?
.....
.....

13. Subjects liked: 14. Subjects disliked:

15. Record grades:

Algebra	English	Agriculture	Shorthand	Social studies	War program courses (specify)
Plane geometry.....	1 yr.....	1 yr.....	1 yr.....	1 yr.....	.....
Advanced algebra.....	2 yr.....	2 yr.....	2 yr.....	2 yr.....	.....
Solid geometry.....	3 yr.....	3 yr.....	Typing.....	3 yr.....	.....
Trigonometry.....	4 yr.....	4 yr.....	1 yr.....	Shopwork (specify type and number of years)	.....
Physics.....	Mech. drawing.....	Home economics.....	2 yr.....	.....	.....
Chemistry.....	1 yr.....	1 yr.....	Bookkeeping.....	.....	.....
Biology.....	2 yr.....	2 yr.....	1 yr.....	.....	.....
General science.....	3 yr.....	3 yr.....	2 yr.....	.....	.....
.....	4 yr.....	4 yr.....	3 yr.....	.....	.....

A reproduction of the reverse of this card follows. Items 28-33, inclusive, may be used for noting, by check mark or brief notation, pupil's status with respect to any of the listed classifications.

16	17	18	19	20	21	22	23	24	25	26	27
Sex	Age	Race	Height	Weight	Vision Left:Right	Hearing Left:Right	General physical condition	Average all grades	Rank in class	Scholastic aptitude decile	Classifica- tion code

28. Eligible for specialized courses:

- Physics.....
- Mathematics.....
- Military pre-flight.....
- Special science courses.....
- Other courses suggested by the armed forces (write in names).....

32. Available for part-time employment:

- Business.....
- Industry.....
- Farm.....
- Home.....

33. Available for Volunteer Services:

- Air-raid protection.....
- Red Cross.....
- Salvage.....
- War Stamps.....
- Other special community war service.....

29. Eligible for Victory Corps Divisions:

- Air.....
- Land.....
- Sea.....
- Production.....
- Community.....

30. Capable of advanced training beyond high school:

- Engineering, Science and Management War Training.....
- Enlisted reserve.....
- Apprenticeship.....
- Military technical.....
- Civilian technical (college).....
- Nurse.....
- Business.....

34. Personal characteristics: Judgments of several teachers who know the pupil combined in one rating are better criteria than one individual estimate:

- | | | |
|-----------------------|------------------|------------------|
| Industry..... | Below
average | Above
average |
| Initiative..... | | |
| Responsibility..... | | |
| Leadership..... | | |
| Quality of work..... | | |
| City or locality..... | | |

31. Not physically fit for Armed forces: Pupil not meeting requirements for various armed services.

Name of school.....

21. Vision: As indicated by examination provided through school health service. (If it is desired to establish certain eligibilities, such as the meeting of physical requirements for the Army Air Forces, a special examination may be necessary.)

22. Hearing: Same as above.

23. General physical condition: May be estimated "Good," "Fair," or "Poor" by teacher on basis of days absent on account of sickness and general observation of pupil's health. Preferably based on periodic health examinations by school nurse and physician.

Physical defects: Known physical defects, such as lameness resulting from infantile paralysis. Results of physical examination; key findings of school physical examinations. If these are incomplete, special examination by physician may be required to establish eligibility for certain armed services, such as the Air Forces. Reference to more complete records may be the most desirable entry here.

24. Average all grades: Average of all subject grades during high-school years up to time of recording. Record this figure in pencil, so erasure can be made and corrections entered as time goes on.

25. Rank in class: e. g., 10th in class of 50, expressed 10/50.

26. Scholastic aptitude decile: Designation of the pupil as being in the first (lowest or other decile; 10th is highest) of his class when class is ranked in terms of scholastic aptitude—scores on achievement tests or other standard measure.

27. Classificational code: Code letters or markings indicating in what classification pupil falls with respect to important war service activities. (See classification list page 10.)

Items 28-34. (Check marks will indicate that this pupil is judged eligible in the categories as described.)

28. Pupil eligible for specialized courses: Capable of benefiting from and succeeding in the courses named, especially those devised for war service.

Physics: The usual course in college-preparatory physics.

Mathematics: Regular units, special units devised for military purposes or refresher courses.

Military pre-flight: Courses devised to prepare boys for military aviation as pilots, bombardiers, and navigators.

Special science: Courses with content modified for specific war purposes.

Other courses suggested by the armed forces: Both current and forthcoming courses to be issued by the Army and Navy.

29. Pupil eligible for Victory Corps Divisions: Has mental and physical characteristics, interests, abilities, and possibilities of later war service which coincide with the basic requirements of one or another Victory Corps division as shown in the bulletin: "High-School Victory Corps."

30. Pupil capable of advanced training: Has mental and physical characteristics, interests, abilities, and possibilities of later service which suggest advanced training of one or more of the types listed:

Engineering, science and management war training: Those special war-training courses given part-time to selected persons already employed in war industry. Commonly known as ESMWT.

Enlisted reserve (or equivalent): College training of accelerated type given to young men in the armed forces.

Apprenticeship: Trade training in higher skills of 3,000 hours' or more duration, e. g., tool-maker.

Military technical: Special training in armed forces, usually of several months' duration or more, to fit men for special military technical pursuit, e. g., signalmen, ground technicians in Air Forces.

Civilian technical: Special advanced college training of professional, scientific, or technical type needed because of the shortage of certain civilian specialists, e. g., doctors, chemists, industrial engineers. (May be more applicable to girls than boys under manpower legislation.)

Nurse: Regular course of hospital training leading to certification as "registered nurse" under State law.

Business: Training beyond the high-school level in commercial or business pursuits.

31. Pupil not physically fit for armed forces. On the basis of school health records and physical examinations, the pupil is clearly not eligible for service in any armed force but may be directed toward civilian service in line with his abilities.

32. Pupil available for part-time employment. The pupil has a schedule and parental approval

which permit part-time employment directly or indirectly aiding war production.

33. Pupil available for volunteer services. The pupil possesses maturity, interest, and time-schedule at school and home which permit voluntary service in OCD or other form of community war work in line with his capacities.

Making the Pupil Inventory in Schools With Complete Cumulative Records

Many schools with rather complete records will not wish to go through the labor of "posting" many items of information from these records to special cards to be used in the wartime *Pupil Inventory*. Nevertheless, such schools will desire some sort of easily manipulated index of pupils' names and characteristics.

Probably the best method in such cases is to have someone acting as clerk prepare a single card file on small cards 3" x 5"; each card to contain only the name, address, class, and curriculum of the pupil. The rest of the card can then be utilized for indicating, in simple markings or code, in which classification the pupil belongs.

A sample card of this type is shown herewith:

Name: Leonard Smith.	Classification:
Address: 14 Smith Street.	Air Service.
Class: Senior.	Aviation.
Curriculum: Pre-technical.	Military technical.
Remarks:	Industry.
	Air-Raid Protection.

The five items shown under "Classification" mean that Leonard is eligible for the Air Service Division of the Victory Corps and for the pre-flight course in aviation or aeronautics. He is a good possibility for advanced military technical training, is available

for part-time industrial work, and for air-raid protection work. All these eligibilities, it is assumed, may be determined directly from the school's regular or supplemented cumulative record cards. Colored crayons, metal tabs, or any other convenient device may be used in place of written items.

Other possible devices for classifying pupils directly from the cumulative record are:

1. A system of tabs for application directly to cumulative record folders or cards.
2. A check list of essential classificational items such as the reverse side of the card shown on page 8 may be prepared; or blank cards (or sheets) may be printed in quantity, showing this check list. Different items are checked to correspond to different characteristics of each individual. The individual's name may then be written on a card (or sheet) on which his particular classifications are then checked.

Many schools which have cumulative records may still prefer to post the essential data on an *Inventory Card* such as that described in a previous section.

Using Occupational Categories in the Pupil Inventory (Optional)

Where time and resources of personnel permit, the *Pupil Inventory* may prove more valuable in some large schools and even in smaller ones, if some ready means is employed of classifying pupils in major categories related to functional occupational groupings and hence to divisions of war service.

For this purpose, it is recommended that two major divisions be established by sex; i. e., one file for boys and the other for girls.

Within each of these two divisions, pupils may be classified according to four broad categories corresponding to differences in pupil interest, ability, previous education and

experience, school curriculum in which enrolled, and probable occupational direction:

GROUP I.

In this category may be filed the names of all pupils:

1. Preparing for higher education and capable of successful completion of training in science, engineering, management, medicine, teaching, nursing, homemaking, and other advanced technical and professional work, civilian or military.
2. Capable of successfully completing courses in physics, mathematics, science, aeronautics, and other specialized courses requiring certain intellectual abilities.
3. Meeting the physical and mental requirements for advanced technical training or training for command in the armed forces. (Judged by requirements listed in bulletin entitled *Military Service*, Vocational Division Bulletin No. 221, U. S. Office of Education.)

GROUP II.

In this category may be placed the names of all pupils:

1. Undertaking trade or technical preparation—vocational, shop, or trade courses.
2. Capable of successful study of Army “preinduction” courses in Fundamentals of Radio, Fundamentals of Electricity, Fundamentals of Automotive Mechanics, Fundamentals of Machines, Fundamentals of Shop Work, and of specialized courses in science, physics, and aeronautics.
3. Possessing manual and mechanical aptitudes likely to lead to success in the mechanical-technical levels of air and other armed forces (intermediate enlisted grades) and in civilian pursuits at this level.
4. Possessing ability suitable for short-term industrial training in machine op-

eration, farm aid, and other community service.

GROUP III.

In this category may be placed the names of all pupils:

1. Undertaking business education and clerical courses.
2. Capable of successful work in Army “preinduction” courses related to clerical skill.
3. Capable of successful work in courses preparing for business machine operation.
4. Possessing abilities for successful pursuit of civilian business occupations.

GROUP IV.

In this category may be placed the names of all pupils:

1. Undertaking “general” or “nonacademic” courses.
2. Likely to adjust well in less highly organized manual or service occupations.
3. Capable of successful work in courses preparing for nurses’ “aide,” housekeeping “aide,” farm “aide,” and other emergency work as specialized assistants.

Most frequently the pupils with higher mental and personal qualifications can also be classified for service or training requiring characteristics which are on a lower level. However, it is to be remembered that the Nation at war should use each individual at his highest potential attainment, since the numbers with such abilities are in all categories below the needs.

Where certain prerequisites prevail, such as exacting physical requirements for the air forces, selection based on the prerequisite qualifications will necessarily be exercised. After determining the characteristics of the individual, the deciding criterion for choice of training is the need for that kind of service,

and the wartime counselor must make every effort to obtain as specific a picture of needs as can be secured.

Making the Pupil Inventory More Easily Used

If the *Inventory* is prepared along the lines suggested, a file of pupil cards may appear somewhat as follows:

In Group I will appear the names of pupils whose abilities, interests, education, and experience qualify them for war service tasks and types of training of an advanced technical, professional, or managerial nature.

I	II	III	IV
BOYS			

I	II	III	IV
GIRLS			

In the other groups will similarly appear the names of pupils whose characteristics correspond with the occupational and service demands of categories II, III, and IV. A duplicate card may be placed in a second or even a third category when a pupil has more than one possible area of service.

Classifying Individual Pupils

In classifying pupils, the essential characteristics of each pupil must be carefully studied.

The main indices or inventory items for judging the classification of any pupil will be:

1. Physical characteristics and maturity.
2. Scholastic aptitude.
3. Course or curriculum.

4. Vocational courses and experiences.
5. Occupational interest and intention.
6. Personal characteristics.

In the case of Victory Corps activities pointing directly toward advanced training in the armed forces—especially for potential officer candidates—individual characteristics must be checked against the required qualifications in such items as vision, height, weight, and hearing. These qualifications will be found specifically listed in the bulletin *Military Service*, Vocational Division Bulletin No. 221, U. S. Office of Education, and on charts and in other publications describing job oppor-

tunities and categories in the Air Forces, Navy, and other Services. (See Section II on War Information.)

A few brief examples of how pupils may be placed in one or another classification of potential war service may be helpful:

Philip Jackson: Age 16.

Physical: Good physical condition. No defects.

Scholastic:

Third in class of 375.

Averages A.

Especially good grades in botany, zoology, chemistry, Latin, and English.

I. Q. 135.

Curriculum: Pretechnical.

Vocational: None.

Occupational interest: Medicine.

Extracurricular: Member of Science and Latin clubs.

Philip Jackson's father is a prominent doctor, specializing in surgery. Philip is interested only in medicine. His Victory Corps Adviser may suggest his joining the Community Service Division rather than the Land, Sea, or Air Service Divisions, since it is unlikely that he would be out of medical school before the end of the present war, and he has 2 years to go before reaching draft status.

Peter Jones: Age 17½.

Physical: Meets vision, hearing, teeth, height, and weight requirements for aviation pilot. All-round athlete.

Scholastic:

Third quartile of class.*

Averages B.

Physics, chemistry, mathematics, and shop work A.

I. Q. 122.

Curriculum: Pretechnical.

Vocational: Courses in shop work (metal and wood), auto-mechanics, electricity, mechanical drawing. Lives on farm and takes active part in running it.

Occupational interest: Agriculture.

Extracurricular: Football, basketball, track, Hi-Y Club, 4-H Club, Boy Scouts.

Peter Jones is the only son at home on the 240-acre farm. His father is in ill health. Peter may be considered eligible for specialized courses in aeronautics, and Army "pre-induction" subjects. He is eligible for the Air Service, Sea Service, Land Service, and Production Service Divisions of the High-School Victory Corps. He is also interested in air-raid warden duties. Which division Peter enters will depend upon interviews with the Victory Corps Director, although he wishes to be engaged in agriculture. Peter will be 18 years of age in April. Whether he enters the Production Service Division in preference to the Air Service, Sea Service, or the Land Service will depend in large measure upon Selective Service policies in his community.

*See "Definitions" on page 6.

Leonard Smith: Age 17.

Physical: Meets vision, hearing, teeth, height, and weight requirements for Ground Officer, Aviation Cadets. (See Basic Physical Requirements, Chart on "26 Job Opportunities in the U. S. Army Air Forces.")

Scholastic:

Fourth quartile of class.

Averages B plus in all studies.

A in physics, mathematics, and science.

I. Q. 118.

Curriculum: Pretechnical.

Vocational:

Has had shop metal, wood, mechanical drawing. Good marks.

Worked during summer in garage. Also part time during school year.

Occupational interest: Structural engineering.

Extracurricular: Football, aviation club.

Leonard Smith may be classified as eligible for specialized courses in physics, mathematics, science, Army "preinduction" subjects, and aeronautics. He may be encouraged to think about preparing for engineering officer training in the ground officer group of aviation cadets. The High-School Victory Corps director will consider Leonard favorably for membership in the Air Service Division of the Victory Corps. He may look forward to nearly a year at college before induction.

Richard Brown: Age 17½.

Physical: Meets physical requirements for armed forces. (See *Military Service*, Vocational Division Bulletin No. 221, U. S. Office of Education.)

Scholastic:

Third quartile of class.

Averages B.

Typing and bookkeeping B.

I. Q. 112.

Curriculum: Business.

Vocational: Courses in typing, bookkeeping, and business practice.

Occupational interest: Accountant.

Extracurricular: None.

Richard Brown may be considered eligible for any of those divisions of the armed forces requiring clerical and business training such

as: Air Force administrative clerk; Air Force supply and technical clerk. Richard may enter one division or another of the Victory Corps depending on his interest and further training. He will naturally be supplied with full information concerning all requirements for the two main clerical branches of the Air Forces. (See Section II on War Information.)

If he is interested in Land Service and in the Army Quartermaster Corps, instruction in one of the Army "preinduction" courses may not be amiss. He might also be interested in becoming a yeoman in the Navy and hence in the Sea Service Division of the Victory Corps.

Mary Jones: Age 16.

Physical: Good physical condition. No defects.

Scholastic:

Fourth quartile of class.

Averages A.

Physics, science, mathematics A.

I. Q. 130.

Curriculum: College-preparatory.

Vocational: Some homemaking in ninth grade.

Occupational interest: Physics.

Extracurricular: Member of science club, ski club.

Mary is among the five top pupils of her class; her interest in physics is valid and her ability demonstrated.

Although there is a demand for nurses to go into training and for machine operators among girls graduating from high school, in view of the need for highly selected girls for war service in higher technical pursuits, including those requiring knowledge of physics on the college level, Mary may safely be sent on to the college of her choice for further scientific training directly related to the war effort.

Clarence Griffin: Age 17½.

Physical: Robust and free from defects.

Scholastic:

First quartile (lowest) of class.

Averages C.

Shop work B.

I. Q. 92.

Curriculum: General.

Vocational: Part-time garage work.

Occupational interest: Machine shop.

Extracurricular: Any outdoor or mechanical activity.

Clarence will undoubtedly be inducted upon reaching 18 years of age. A course in "pre-induction" auto-mechanics will help him prepare for one branch of the service where he may be useful and stand good chances of promotion. Land-Service Division.

Corrinne Meister: Age 17.

Physical: Average, with few absences. Wears glasses.

Scholastic:

Second quartile.

Averages C plus.

Typing A.

I. Q. 96.

Curriculum: Commercial.

Occupational interest: Office work.

Extracurricular: Camp Fire Girl, office assistant to dean.

Corinne doesn't do so well in English and shorthand, but types with speed from copy and has good digital dexterity. She may be given special training in some form of typing or office-machine work which the U. S. Employment Service reports is in demand. Community Service Division.

Axel Landfer: Age 18.

Physical:

Very frail, with frequent illness history, but recent regular attendance.

Heart affected.

Scholastic:

First quartile.

Averages C.

Mechanical drawing A.

I. Q. 100.

Curriculum: General.

Vocational: No experience, but is successful selling tickets, etc.

Occupational interest: Architect (beyond his powers).

Extracurricular: Clubs of social nature.

In event of acceptance by induction board, will need wide information as to service he can render and any special training which can be given. In view of possibility of rejection,

might be urged to acquire enough mathematics to go with his mechanical drawing for ESMWT course. In view of liking for people, might be steered toward some job without physical strain involving meeting the public. Community Division or Production Division.

Walter Griffin: Age 17.

Physical: Excellent, except bad teeth.

Scholastic:

Third quartile.

Averages B plus.

Mathematics, shop work A.

I. Q. 115.

Curriculum: Technical.

Vocational: Works with father in small job repair shop.

Occupational interest: Die sinker (apprenticeship).

Extracurricular: Stage hand club.

Walter may be encouraged to sign apprenticeship papers with local war-production plant where his skills are much needed. Dental care should be brought about. Production Division.

Diana Worth: Age 18.

Physical: Excellent, no defects.

Scholastic:

Third quartile.

Averages B minus.

Dramatics, Home economics A.

I. Q. 125.

Curriculum: General.

Vocational: None, after general course in finishing school.

Occupational interest: None.

Extracurricular: Dramatics; vice president of two classes.

Diana comes from a well-to-do family, has not been called upon to earn money, works for the most part below capacity. She is, however, popular, and sympathetic with pupils of all kinds. She works intensely when interested and is always helpful in a crisis. Her counselor may well try to arouse her desire to serve and perhaps interest her in nursing, then alter her courses to fit entrance require-

ments of local hospital, when she would be eligible for the Community Service Division.

Julia Brent: Age 18.

Physical: Average. No defects.

Scholastic:

Second quartile.

Averages C plus.

No outstanding subjects.

I. Q. 98.

Curriculum: General.

Vocational: No pattern, but has done odd jobs in stores, packing rooms, and on a footpress.

Occupational interest: "Anything."

Extracurricular: Member of variety of clubs, with no discernible pattern.

Julia may become interested in a VTWPW course and be given credit for such training towards her diploma. Production Service Division.

When boys reach 18 years of age during their school careers, the wartime counselor must consider the currently applicable regulations as to their induction into the armed services. At present the rules provide for immediate basic training of those physically fit in accordance with Misc. 3018, obtainable from the Occupational Information and Guidance Service, U. S. Office of Education.

Identifying Special Capabilities or Characteristics

In going through the *Pupil Inventory* file, counselors may wish to mark especially those pupils available for air-raid precaution work, for part-time employment in local places of business, who are eligible for the air forces, or who possess other possibilities in important phases of war service.

It is easily possible to set up so many different classifications or "codes" that a point is reached where the system takes more time to operate than it is worth. In larger schools, however, counselors may find it useful within the four major groupings especially to mark, code, or tab pupils falling into one or the

other of these convenient classifications, which will be found on the reverse side of the Inventory Card, described on page 8.

Eligible for Specialized Courses:

- Physics.
- Mathematics.
- Military pre-flight.
- Special science courses.
- Other courses suggested by the armed forces.

Eligible for Victory Corps Service Divisions:

- | | |
|-------|-------------|
| Air. | Community. |
| Land. | Production. |
| Sea. | |

Capable of Advanced Training Beyond High School:

- Engineering, Science, and Management War Training.
- Enlisted reserve.
- Apprenticeship.
- Military technical.
- Civilian technical (college).
- Nursing.
- Business.

Not Physically Fit for Armed Forces:

- Pupil not meeting requirements for various armed services.

Available for Part-Time Employment:

- | | |
|-----------|-------|
| Business. | Farm. |
| Industry. | Home. |

Available for Volunteer Services:

- Air-raid protection.
- Red Cross.
- Salvage.
- War stamps.
- Other special war services.

The cards of pupils in the several categories may, if desired, be indicated by means of colored metal tabs, mucilage tabs, colored crayon markings, colored paper, or by the use of simple index cards with tabs already affixed

in different positions along the top of the card. A space for such code markings has been left in the upper right-hand corner of the *Pupil Inventory* card shown on page 8.

The extent to which it is feasible to elaborate the classification system may best be judged by the wartime counselor in the light of local conditions.

Adapting the Pupil-Inventory Scheme to State and Local Conditions

Depending on basic local factors of availability of personnel and training facilities, the pupil-inventory pattern here described may be either extended or reduced in scope and content.

Flexibility of application is a cardinal principle in this as in other phases of the Victory Corps guidance program. State supervisors of occupational information and guidance may offer assistance in encouraging local schools to develop pupil inventories adapted to their own conditions. Schools should be discouraged, however, from undertaking over-elaborate schemes which they are not likely to carry to a successful conclusion or utilize effectively.

Where local schools enjoy adequate records, well-trained counselors and experienced State supervision, the *Pupil Inventory* may be organized to include additional, valuable groupings not shown in this bulletin and may be developed to the point where its value as a permanent part of the guidance program will be obvious.

III. SECURING AND USING INFORMATION ABOUT CRITICAL WARTIME SERVICES AND OCCUPATIONS

THE WARTIME COUNSELOR upon assumption of his duties in the High-School Victory Corps, is likely to ask these four questions: (1) What information about critical services and occupations is needed to counsel with the individual pupil regarding how he can best fit into specific training for the war effort, or into a special division of the Victory Corps? (2) Where can such needed information be obtained? (3) How can this information be made readily available for use? (4) How may this information be disseminated to all pupils as general background?

The information required must be concerned first of all with war needs, although it need not neglect the usual material bearing upon the permanent career of the individual. Information of this kind must of necessity be up-to-date and obtained from some responsible source. As a rule, material printed before 1942 will be only indirectly useful.

What Kind of Information Is Needed?

The demand on the wartime counselor for information (excluding the Pupil Inventory) will be of two kinds: (1) Personal questions which pupils will want answered, and (2) questions of fact related to national and local needs in regard to critical services and occupations.

Questions which pupils are likely to ask may be illustrated by the following:

What courses will help me prepare for the air forces?

What war jobs demand college-trained women?

Where can I get training as an office machine operator?

What can I do to help in local civilian defense work?

Where can I get information about the tank corps in the Marines?

What war-training courses for girls are open in our locality?

Would it be wise to enter college now with only a year or two to go before being drafted?

What opportunities are open in Civil Service for those without college training?

Where can I get training in radio work for the Signal Corps?

What are the chances of getting a job in an airplane factory after taking a 6-week course in sheet metal work?

What vocational training courses are offered to men in the Navy?

The second kind of information is concerned with war needs on a national and local basis. For purposes of clarification, national and local needs are treated separately.

National Needs

This kind of information is concerned with professional and semiprofessional training for both military and civilian war service, and for technical training chiefly for war demands. Examples of occupations and services in this group are: Aviation pilot, airplane engine mechanic, chemist, physicist, mechanical engineer, nurse, and radio operator. Two illustrations are:

Engineering: Information about the engineering profession is necessary, but it must be presented in the light of accelerated programs in colleges and the requirements of war industry, and of the law calling for draft of 18-year-olds.

Radio operator: Information about radio operation will be most essential as relevant, not to a career in the broadcasting field, but to the demands of the armed forces for radio operators and for the particular type of radio training required in those forces. The boy deciding to take up radio training, and the school offering to train him, will have in mind the fact that he is at the age of 18 subject to Selective Service. Skills of this sort are much in demand under any circumstances.

Local and Regional Needs

Services and occupations necessary to supply regional and local needs are directly dependent upon the fluctuations of the war effort affecting the locality in which the school is situated. Much of the occupational information needed cannot be obtained from the usual books and pamphlets describing the work of the machinist, the stenographer, the farmer, and other workers. The important information in wartime is that in regard to the number of workers required currently, and the specific nature of the duties demanded of them in the emergency. A few characteristic occupations falling in this group are: Welder, machine operator, sheet metal worker, nursing aide, mechanic learner, child-care worker, agricultural worker, construction worker, stenographer, and homemaker. Two illustrations of this kind of information are:

The labor needs arising from the movement of men and women from local jobs into military service and war-production industries. Such information is essential in counseling pupils regarding local employment opportunities. Many of the local needs may be filled by part-time workers, especially in agricultural regions and in some service fields.

The demand for a number of typists skilled in filling in blank forms only, or

agricultural workers needed for only 3 weeks to pick a hand crop, or some assembly line production workers skilled in only one process.

In securing information about numbers of jobs to be filled, the characteristics required of the workers, and the place in which the work is to be found, heavy reliance must be placed on the official agencies set up to handle such problems. In all larger cities and towns and in many rural sections this agency is the local office of the U. S. Employment Service. In some circumstances, however, this Service may not offer complete facilities. In cities, for instance, the Service may be forced to neglect labor supply and demand questions not involving war-production establishments. In rural sections it may not have adequate coverage. In either of these contingencies the school wartime counselor must be prepared to make direct contacts with employers and other agencies. In rural districts the county war boards of the Department of Agriculture, the vocational agricultural teachers, and the farmers themselves are important sources of information.

Summary

Information about professional and military needs will be available from national sources only and may be obtained by a local school through one or more of the following means: (1) Using the State department of education as a clearing house; (2) acquiring certain releases direct from Washington war agencies; (3) establishing contacts with local representatives of such Washington agencies as the Selective Service Board, War Manpower regional offices, or recruiting offices of the military services; and (4) making contacts with colleges and universities, normally drawing freshmen from that school and now used for Federal military training purposes.

Information about subprofessional and all other civilian needs is primarily a local matter that may be obtained most accurately through contact with: (1) The nearest branch of the U. S. Employment Service; (2) agricultural employers; (3) business establishments not serviced by the U. S. Employment Service; and (4) miscellaneous employers of part-time or full-time labor, including paid and volunteer activities.

Sections III, IV, and V suggest ways and means of carrying out these functions.

Sources of Information About Critical Services and Occupations

In attempting to discover and secure needed information, the wartime counselor is confronted with three approaches: (1) To secure information which is already available in the form of bulletins, pamphlets, reports, monographs, charts, visual aids, periodicals, and other kinds of printed or duplicated material; (2) to discover and use sources of current information in order to keep posted on new material; and (3) to make personal contacts with local individuals and agencies for regional information. Certain information does not exist in printed form and is available only on investigation.

The above three divisions of the problem of securing information will now be discussed in turn, with suggestions as to specific sources and the means of reading and using them.

Occupational Publications for Every Wartime Counselor

Available by purchase from the Superintendent of Documents, Government Printing Office, Washington, D. C. (Remittance must be sent with order).

Military Service—Army, Army Air Forces, Navy, Marines, Coast Guard, Nurses. Walter J. Greenleaf

and Franklin R. Zeran. U. S. Office of Education, Vocational Division Bulletin No. 221. 1942. 48 p. 10 cents.

26 Job Opportunities in the U. S. Army Air Forces. A chart issued by the U. S. Office of Education and the U. S. Army Air Forces. 1942. 10 cents.

Job Training for Victory. A chart of programs authorized by Congress to train persons for work in defense industries, Governmental agencies, and the armed services. U. S. Office of Education. February 1942. 5 cents.

Handbook of College-Entrance Requirements. U. S. Office of Education, Bulletin 1941, No. 13. 79 p. 15 cents.

Pre-aviation Cadet Training in High Schools. U. S. Office of Education, Leaflet No. 62. 17 p. 5 cents.

High-School Victory Corps. U. S. Office of Education, Victory Corps Series, Pamphlet No. 1. 1942. 32 p. 15 cents.

Physical Fitness. U. S. Office of Education, Victory Corps Series, Pamphlet No. 2. 1942. 102 p. 25 cents.

Education for Victory. (Biweekly periodical). U. S. Office of Education. \$1 a year. (24 issues). Current articles on occupations, guidance, and the Victory Corps.

Your Questions as to Women in War Industries. Women's Bureau Bulletin No. 194. 1942. 5 cents. (Write to Women's Bureau for list of other publications and of exhibit materials).

Opportunities in the U. S. Merchant Marine. Franklin R. Zeran. U. S. Office of Education. Vocational Division Leaflet No. 9. 1942. 15 p. 5 cents.

Selective Service Regulations. Second edition. 1942. Loose-leaf form. \$1.

Professional Nurses are Needed. U. S. Office of Education, Vocational Division Leaflet No. 10. 1942. 28 p. 15 cents.

War Jobs for Women. Office of War Information. Magazine Section. 1942. 10 cents.

Available **FREE** from Recruiting Stations, near you.

Service with the Colors. New York Recruiting Publicity Bureau. 1939. 53 p.

Keep 'Em Flying: Aviation Cadets Train for Air or Ground Crews. U. S. Army Air Forces. 1942.

Ordnance Department, U. S. Army. A folder. 1942.

Get the Message Through. A folder. U. S. Army Signal Corps. 1942.

Your Skill with Tools Will Keep 'Em Flying. U. S. Army Air Forces. 1942.

Women's Army Auxiliary Corps. A folder. 1942.

Men Make the Navy—The Navy Makes Men. U. S. Navy. 1942. 49 p.

Your Navy Wings in Sight! For Class V-5 Naval Aviation Cadets. Bureau of Aeronautics, U. S. Navy. 1942. 21 p.

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The First Year. A study of women's participation in Federal Defense Activities. Lucille Foster McMillen. U. S. Civil Service Commission. 1941. 39 p.

Army Without Uniform. The story of the War Department's Civilian Training Program. War Department, Washington, D. C. 1942. 29 p.

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War Service Opportunities for College and University Students. A cumulative loose-leaf bulletin published by the American Council on Education, Washington, D. C. The entire series, one complete set costs \$4.

Table I, The Armed Forces (August 17, 1942). 10 cents each chart—minimum order \$1.

Table II, The Civil Service (chart 34" x 32"). 10 cents each—minimum order \$1.

Sources of Current Information

1. *State Departments of Education.*—A number of States have set up occupational information and guidance services in the State Departments of Education. Most other States have appointed someone to clear guidance information and problems. A wartime counselor should establish contact with this service in his own State Department of Education. Counselors may expect to receive such information and services as: Further sources of information about various war services, information about vocational training courses offered within the State, aid in securing information on a national basis from various Federal and other agencies, and specific field services relating to the organization and use of this information in the Victory Corps guidance program.

2. *U. S. Office of Education, Occupational Information and Guidance Service.*—The Occupational Information and Guidance Service of the U. S. Office of Education in Washington, D. C., has facilities for gathering and disseminating much information useful in the Victory Corps guidance program. Publications from this source may be obtained on two bases: (1) Free material upon direct request to the Service; and (2) material to be purchased from the Superintendent of Documents, Government Printing Office, Washington, D. C.

A single copy of all free publications is mailed to individuals on certain selected mailing lists. If the first edition is sufficiently large it may be sent to all principals of high schools. Special guidance publications are sent to counselors whose names are on the mailing list. Additional copies of printed publications may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., if a remittance for the listed price is enclosed. In some instances, the State supervisor of occupational

information and guidance may be able to secure or to duplicate such publications in sufficient quantities to distribute to counselors in his State.

3. *Superintendent of Documents.*—Most printed publications issued by the various Government offices are printed at the Government Printing Office, and are for sale by the Superintendent of Documents, Washington, D. C. A free "Semi-monthly List," which is mailed to many schools and public libraries, is available for reference.

4. *U. S. Civil Service Commission.*—Arrangements have been made with the Civil Service Commission, Washington, D. C., to send directly to individual schools announcements of prospective Civil Service openings and examinations for which high-school pupils are eligible. The person in the State Department of Education in charge of the Victory Corps guidance program will act as clearing agent with the Civil Service Commission. A counselor needs only to write to this person to have his school placed on the mailing list.

5. *Colleges.*—The counselor should be informed regarding wartime curricular adaptations and special Federally aided Engineering Science and Management War Training Courses (ESMWT) in his region. This is especially true of colleges to which pupils from the school have gone or are likely to go. For many pupils the usual general information about higher education will be required.

6. *Directors of Emergency Federally Aided Training Programs.*—The counselor should find out about the various war-training programs conducted within the State. Such programs include at this writing Vocational Training for War Production Workers; (VTWPW); Vocational Training for Rural War Production Workers; Engineering Science and Management War Training Courses (mentioned above); National Youth Administration; and Training Within Industry. The

State guidance service should be in a position to assist the counselor in securing information about what courses are offered, where and when offered, and the local person in charge.

7. *Periodicals and newspapers.*—One of the most accessible sources of current information is the local newspaper. Newspapers and selected periodicals should be scanned regularly and items of particular interest clipped and filed for the use of pupils. Pupils can often furnish many types of recent magazines that have been read and discarded. The State guidance service will furnish upon request a list of useful periodicals. Pupils may be trained in checking such material for accuracy.

8. *Visual aids.*—An important means of disseminating occupational information is through the use of such visual aids as motion-picture films and film strips. Those schools equipped with projectors should find out the sources where they may borrow suitable films for use in the Victory Corps guidance program. Film exchange services are provided through Visual Education Departments in certain colleges and State Departments of Education. The counselor should determine if such exchanges exist in his State and if so how to secure appropriate films.

9. *Miscellaneous training institutions within the State.*—There are numerous trade schools, nursing schools, business schools, mechanical institutes, and vocational schools in every State. In order to find out the names and addresses of such schools in any particular locality, the counselor may consult city directories and the classified sections of telephone directories. As a rule, these schools are not accredited by any single agency, although several types of schools are approved by special accrediting bodies. Many publish material concerning their offerings in the war effort. The superintendent of schools in a given town will be helpful in determining the standing of a local privately controlled school if there is no accrediting agency.

Securing Information Through Personal Contact

1. *Local schools.*—It is essential that the counselor be thoroughly acquainted with all training programs conducted within the local schools. Such programs may include in addition to regular school courses and curricula: Pre-induction courses; physical fitness courses; regular vocational courses adapted to wartime needs (homemaking, agriculture, distributive education, and trade and industrial courses); vocational training courses for war-production workers; vocational training courses for rural war-production workers; and others, such as, first-aid, child-care, home-nursing, and special civilian defense courses. Local teachers and directors of these training courses should be able to supply the essential information needed in counseling.

2. *U. S. Employment Service.*—The nearest office of the U. S. Employment Service is in the best position to furnish information concerning local and regional labor supply and demands. The Employment Service cannot reveal specific information regarding labor demands of a single local war industry or plant. The counselor, however, should be able to secure information about present and likely future trends concerning the demand for certain kinds of workers needed to fill regional and local war-employment demands. The Employment Service is also in a position to furnish information about, and referral to, various local and nearby training programs for war-production workers. In addition to full-time offices, the Employment Service provides itinerant service in a number of small communities. Volunteer Employment Service representatives are active in many other communities not served by either of the two above means. In some small communities, perhaps, the counselor should volunteer for this work.

3. *Local employers.*—Where the local U. S. Employment Service is not in a position to supply needed information, the counselor will

find it necessary to go personally to local employers in order to secure information regarding non-war-production placement opportunities. This is particularly true in certain areas where the Employment Service office is forced to direct all of its energies toward the placement of war production workers.

4. *Armed Forces Recruiting Offices.*—Where possible the counselor should visit the nearest recruiting offices of the Army, Navy, and Marine Corps. In addition to securing available leaflets and publications about these Services, it will often be possible to obtain information, not otherwise readily available, for use in counseling pupils inquiring about enlistment in one of the armed services.

5. *Civilian Defense Councils.*—In order to secure information about opportunities for volunteer service and training for local civilian defense activities, the counselor should make contact with the representative of the local Civilian Defense Council who is charged with dealing with the schools.

6. *Community organizations.*—A counselor is likely to find some organizations in his community such as service clubs, women's organizations, 4-H clubs, Future Farmers of America, YMCA, YWCA, YMHA, K of C, and others similar in scope and purpose. The counselor should make contacts with such organizations, obtain any literature that they publish, and confer with persons in charge of counseling, placement, or training.

7. *Local draft boards.*—Questions concerning the carrying out of the Selective Service Act are of highest importance to boys approaching draft age.

The counselor should understand the basic principles of the National Selective Service Act and keep informed regarding amendments to and the administration of this Act. Factual questions concerning the Selective Service Act may be obtained from local draft boards. Printed information is available from the Superintendent of Documents, Government

Printing Office, Washington, D. C. Ask for the second edition of Selective Service Regulations (1942), which is available in loose-leaf form for \$1. Subscribers will also receive new regulations and subsequent amendments as released.

Organizing Information for Ready Use

As the Victory Corps guidance program gets under way, the counselor will face numerous situations in which it is necessary to discover information quickly. Effective use of the information will depend to a large degree on how well it is organized. Consequently, it is necessary to work out some simple scheme for filing in order that needed information may be found as desired without hunting for it. In many instances the librarian is in a position to offer assistance in setting up and maintaining the file.

Many schools have already worked out well-defined methods of filing occupational information. Where this is the case it may be necessary to revise or adapt the method used so that information about critical war services and occupations will stand out. Schools undertaking to set up an occupational file for the first time will find that in most cases a simple scheme will work to best advantage.

Standard filing cabinets are preferable if it is possible to obtain them, but the lack of such facilities should only challenge the counselor to devise a substitute file or case. Heavy cardboard transfer files are often satisfactory. In many cases it will be possible to construct an appropriate container out of wood, perhaps through the aid of the school shop.

With regard to the organization of the material within the file, two methods are suggested:

1. An alphabetical arrangement may be followed. As the counselor secures material

it may be filed in folders according to the nature of the material. A few suggested titles might be: Apprenticeship, agricultural worker; Army, United States; Army Air Forces; and Army Nurse Corps.

These are merely representative titles. No two alphabetical files need be the same. The counselor must use his own initiative and develop his own alphabetical list according to the nature of the material he secures and the use which he makes of it.

2. A somewhat more ambitious arrangement might be to select two or more large groups of occupations such as "military service occupations" and "critical civilian occupations" and subdivide these groups into smaller groups or individual jobs which are characteristic of your community. Another idea might be to use as groupings the five divisions already suggested in Pamphlet No. 1 of the Victory Corps Series: Air Service Division, Land Service Division, Sea Service Division, Production Service Division, and Community Service Division.

If this scheme is used the counselor would have to decide in which of the five divisions any specific information should logically belong. It then becomes a matter of straight alphabetical filing within each division.

Using the Information

One of the main purposes to be served by information about critical war services and occupations is to enable the wartime counselor to give accurate answers to pupils in counseling interviews. More detailed suggestions regarding how the counselor uses such information are offered in Section IV, "What the Wartime Counselor Should Do."

The Victory Corps program as a whole will require on the part of pupils a general background of information about critical war services in occupations not possible to supply through counseling interviews only. In this

aspect of disseminating occupational information, the entire school must share responsibility. The following suggestions cover briefly a number of ways in which the school may perform this function:

1. Through regular classes in appropriate subjects.

Numerous opportunities exist in English, social studies, mathematics, natural science, industrial arts, vocational subjects, and pre-induction courses, to relate information bearing on critical occupations and services to the interests and activities of pupils.

A number of wartime occupations may have little relationship with actual content of subjects being taught and introducing irrelevant material should be avoided, but appropriate use of class-related information will often be possible.

2. Courses in occupations.

Schools offering courses in occupations may add to the study of long-time vocational planning an emphasis on those occupations and services which are critical in wartime.

3. Assemblies and homerooms.

One medium of reaching a large number of pupils quickly is through appropriate assembly and homeroom programs. The wartime counselor should help arrange such programs in order that information of general nature may become widespread among the older pupils. Information thus disseminated reduces the necessity of the counselor spending too much time in interviews acquainting pupils with general information and thereby allows a more direct and specific approach to each individual problem.

Assemblies, in particular, offer good opportunities to disseminate information in the form of visual aids. Many excellent films are obtainable, which deal with training programs in the armed services and

occupations of importance in the war effort. For suggestions about sources of these aids see page 22.

4. Displays.

Much material is now coming out in the form of charts, posters, and other large illustrations. The counselor should assume responsibility for seeing that material of this nature is appropriately displayed in the school, either directly, or through such faculty resources as the art department.

5. Library bookshelf.

Where possible a special bookshelf on materials relating to critical occupations and services should be set up in the library. Only books and other material of recent date should be included. The attention of pupils should be called to the materials on this special shelf through announcements in homerooms and assemblies, regular classes, and individual efforts of the counselor and librarian. The counselor should also work closely with the librarian in recommending the purchase of new references and periodicals relating to the Victory Corps guidance program. Such a shelf, reserved for books, leaflets, and other publications about occupations, is popular with boys and girls if conveniently placed and of free access.

Each wartime counselor will have his own ideas about the best methods of dissemination of occupational information and his ideas can be supplemented by those of

other members of the faculty. One person may suggest forums; another, games; another, occupational plays; and another may encourage pupils to write occupational articles for the school paper. Any attack is good which serves to furnish accurate information and answer pupil problems.

Addendum

Since this manuscript was set in type the responsibility for the recruitment of workers in agricultural occupations has been shifted from the U. S. Employment Service, War Manpower Commission, to the U. S. Department of Agriculture.

The recruiting of emergency farm labor will include plans to secure thousands of urban youth for vacation work in agricultural jobs.

For work on a part-time and summer basis and also on a full-time basis where local labor is concerned, the county agent's office will be the recruitment center. The respective State supervisors of vocational agricultural education and the county agents representing the U. S. Department of Agriculture will have certain joint responsibilities in carrying on the program.

In view of the above facts, wartime counselors, both rural and urban, should make contacts with the competent officials in their own States. It should be realized clearly that facts about agricultural occupations and placement in such jobs are dependent upon the new administrative provisions.

IV. WHAT THE WARTIME COUNSELING STAFF SHOULD DO

THE PROPOSALS of this section are based upon the presence in a school of one or more persons who are referred to here as wartime counselors, and to whom the school administrator has assigned certain duties and responsibilities, with corresponding provisions to assist in the discharge of these tasks. Even if in a small school the principal himself must be the wartime counselor, he will find that his duties in this capacity require clarification and the setting up of orderly procedures. This section is designed to help him, or any other person charged with these tasks whether on a part-time or full-time basis. Section V discusses the qualifications of the wartime counselor and means for carrying on the suggested program.

Upon reading the following suggestions many school administrators may assume that they are pitched far beyond their resources. That is perhaps true, for an attempt is made to outline a maximum program. A number of schools will find it necessary to make modifications in these proposals to bring them into line with their resources. The plans here stated are for an over-all view of the job of counseling in the present wartime situation. In most schools the wartime counselor will not only be in charge of counseling, but also perform many supplementary duties that must be done if the program of guidance for the High-School Victory Corps is to work. These duties are enumerated and discussed under the nine topics which follow.

Duties of the Wartime Counseling Staff

1. Take charge of the preparation of the pupil inventory and interpret it as needed for use by the principal of the school.

In smaller schools the wartime counselor may personally transfer to the individual inventory card all the data from various sources. In larger institutions he may enlist the help of some members of the staff. In any case, providing a usable inventory card will be one of the first jobs he must do before he is ready to perform subsequent duties. After the pupil inventory cards are complete he will from time to time, as needed, discuss with principal, pupil, and teachers the implications of this information in terms of the pupils' participation in the High-School Victory Corps program and possible military or civilian war service, and consequent curriculum needs:

2. Collect and disseminate occupational information about the armed services and war production which has a relationship with participation in the High-School Victory Corps.

One of the first duties of the wartime counselor will be to secure for the school as soon as possible information about occupational opportunities in the armed service and war production. Suggested sources and uses are to be found in Section III.

3. Supply individual counseling necessary for pupils.

(a) Furnish the pupil with particular facts bearing upon his personal choice of participation in the High-School Victory Corps program.

(b) Help the pupil and parent interpret the information already available to them in order to facilitate in every way the wise choice of the pupil of his area of participation in the High-School Victory Corps program.

The best choice of participation in the High-School Victory Corps will likely be made when the individual has an adequate knowledge of the opportunities and requirements offered by the courses in the school and their relationship to later service in military or civilian war service. Added to this must be a clear understanding on the part of the pupil of his assets and liabilities. This knowledge of opportunities and knowledge of self must be harmonized so as to bring about an intelligent choice of participation in the High-School Victory Corps. The pupil will need the help of some individual counseling to do this effectively.

Economy of time and resources will dictate that much of the information concerning participation in the High-School Victory Corps and opportunities in military or civilian war service must be given through group activities as suggested in the use of occupational information on pages 24 and 25. After the information has been disseminated and the pupil is well informed of the opportunities available he will need the services of the counselor on an individual basis to help him interpret the data of his individual inventory. If an intelligent choice of war service is to be made, the pupil must be helped in matching the best opportunity to serve war needs with his best abilities.

The following steps are suggested for the wartime counselor as means of getting this program of individual counseling under way:

- (a) Completing of inventory cards for those who because of age must soon participate actively in the military or civilian war services.
- (b) Disseminating of information as suggested in Section III.
- (c) Scheduling one or more periods a day for a few days in which the coun-

selor is always available for pupil and parent to answer any questions which have arisen.

- (d) Obtaining preliminary choices of participation in the program.
- (e) Reviewing each choice for possible inconsistencies in terms of the pupil's scholastic record, native ability, physical status, and other data which may have significance. Arranging for interviews with pupils in those cases in which these inconsistencies exist. (See *Mechanics of Interview*, page 30.)
- (f) Following up of all cases not satisfactorily adjusted.
- (g) Continuing interviews as the plans and interests of the pupils and war needs require.

4. Help the faculty understand and assume their functions related to guidance in the High-School Victory Corps program.

Unless the faculty understands the purpose, organization, and the part they can play in the High-School Victory Corps guidance program they cannot, and should not, be expected to participate effectively. Someone has said, "We are generally down on what we are not up on." The principal should see that the faculty is "up on" the High-School Victory Corps guidance program as one of the first steps toward doing an effective job, and employ the wartime counselor in suitable capacities for this purpose.

In discussing the guidance program with the faculty, the two following procedures are of special importance:

- (a) Listing guidance activities for which the counselor will need some aid. (Example: Having pupils fill out the blanks indicating their preliminary choices.)
- (b) Canvassing the faculty to secure suggestions and volunteers for accomplish-

ing those parts of the guidance program which the wartime counselor cannot accomplish through his personal efforts.

An example may be taken from the field of information about critical wartime services and occupations. The counselor may explain that he can take this responsibility insofar as it can be exercised in the individual interviewing of pupils. The more general dissemination of information will require an attack by the school as a whole. A faculty discussion might include such subjects as: Information through classroom teachers, auditorium programs, library facilities, and the school paper. (See Section III.)

As a result of the faculty conference, auxiliary guidance services may be advantageously increased. For instance, the teacher of vocational agriculture may assume the responsibility for giving specific information to pupils about agriculture as a war occupation, or about conducting a victory garden as the pupil's part-time work requirement in the Production Division.

5. Assist those members of the school staff who have assumed specialized duties in the guidance program.

Each member of the faculty assigned a specific duty will need to know what is to be done and how it fits in the total program of the High-School Victory Corps guidance program. Like any other learner he will have to be told how, shown how, and given an opportunity, to do the task. He will improve as his work is cooperatively evaluated from time to time and helpful suggestions given. If, for instance, standardized tests are given as part of the program to

secure additional data for the pupil inventory, some members of the faculty with the assistance and cooperation of the wartime counselor may assume and carry on the task of administering and scoring them with entire competency.

6. Under direction of principal maintain relationships between the school and other agencies within and outside the community which are requesting manpower for training or employment.

The large number of agencies in the field of war service reveals the need for intermediary and liaison work between those agencies and the schools which will feel the pressure of their several and varying needs. The war-service counselor may be considered the liaison officer for the utilization of manpower below 18 years for the area the school serves. He would maintain this liaison between the school and such agencies as the U. S. Employment Service, and with employers in the area and others interested in the use of the manpower available. The High-School Victory Corps program is the best means at hand of utilizing this potential manpower from the school enrollment.

7. Furnish to pupils, parents, and those who have left school an opportunity to come for information, suggestions, or "just to talk things over."

This consultant service at times would deal with problems of selection and training in the High-School Victory Corps program, or, again, it may deal with problems of selection and training in the actual military or civilian war services.

8. Accumulate and furnish (as an aspect of his responsibilities in the informational phase of the guidance program) to the school administration the best available information as to the number of pupils necessary for training or participation in mili-

tary or civilian war service in accordance with two main categories.

(a) Those war service needs which are more than local in character.

(b) Those which are confined to the community or district and may lead to part-time or full-time employment.

In category (a) occurs information regarding professions and all military needs. Data are obtainable from national sources. The school must depend either upon direct information from such sources, or upon the services of the State Department of Education for gathering such data and acting as a clearing house for its dissemination. The simplest kind of data concern mere numbers required, although these are not always easy to obtain. Other facts will involve the training required on the high-school level, which may imply changes in the curriculum. When curriculum adaptations are involved, the problem is no longer one of guidance only and the guidance staff and those responsible for administration and instruction will share the responsibility.

Information in category (a) may be illustrated by the following examples:

Pre-flight and pre-ground-work aviation needs.

Professional needs, such as those for engineers, nurses, doctors, teachers, or scientists.

In category (b), local occupational data and other information pertaining directly to war needs may be gathered and interpreted by the wartime counselor for referral to local school officials. Local needs for typists and stenographers, for example, can be discovered by conference with the local branch of the U. S. Employment Service or with such employers as are not served, because of war restrictions, by the U. S. Employment Service. Agricultural needs are also determined locally and may result in requests for part-time as well as full-time workers. In fact, part-time work-

ers who are still enrolled in school may constitute an important part of the civilian war service of Victory Corps members. The needs which develop from a shift of workers into more essential war-production services, but which must be met to keep the civilian economy going, such as for sales people and bus drivers, are involved. Many jobs in which women and girls may replace men and boys are in this class.

Here, again, curriculum and schedule changes may appear desirable and the entire faculty rather than the wartime counselor alone, must take on these responsibilities under the direction of the school administration.

The principal of the school may assign to the war-service counselor the duty of discovering such local needs by consulting the competent authorities; of gathering the data which discloses the dimensions of such needs; and, finally, of submitting such data to the proper school authorities for action. The key agency in this whole field is the U. S. Employment Service wherever it maintains an office. (Review pp. 17 and 18, inclusive, in connection with this topic).

9. Assist in selection procedures for specialized classes that may be suggested by State and Federal authorities from time to time.

Conditions not now anticipated may demand new and different types of training. If manpower is to be effectively used then those taking specialized courses of training must be carefully selected in terms of their interests, abilities, and national need. Good selection "doesn't just happen"—it requires well-planned procedures. The war-service counselor is the logical person in the school, by reason of training and time allotted, to plan and supervise selection procedures.

Mechanics of the Interview

Since individual counseling is a key function of a wartime guidance program, as of

any other guidance program, the counselor should be able to approach the task of interviewing an individual with a confidence based on some planned procedure. Wartime counselors may be relatively or even entirely inexperienced. For these the following suggestions on interviewing are offered. Experienced interviewers may want to use the suggestions as a check on their present practices:

1. The Purpose of the Interview

The interview has been called "directed conversation." It is an indispensable part of the counseling procedure. Its purpose is to enable counselee and counselor to assemble available facts, to make a diagnosis on the basis of the facts, and to formulate a sound plan of action based on the diagnosis.

2. Initial Interviews

(a) Discussing general achievement for purposes of determining the best choice of participation in the High-School Victory Corps program.

(b) Discussing achievement in special subjects for the purpose of exercising choices within the divisions of the High-School Victory Corps.

(c) Discussing physical condition as a potential asset or handicap in relation to the High-School Victory Corps and future participation in the military and civilian war service.

(d) Giving specific help in determining the relationship of a division of the High-School Victory Corps to later participation in military or civilian war service.

3. Follow-up Interviews

(a) Suggesting changes in choice of participation in the High-School Victory Corps.

(b) Giving pupils help in arranging their programs of studies so as to meet requirements for the division they have chosen in the High-School Victory Corps.

(c) Harmonizing the individual plans with those of the Nation's needs when possible, with the premise that the needs of the Nation come first.

4. Planning the Interview

The following principles and techniques of interviewing are based on a four-point program:

(a) Preliminary steps

(1) Provide the best quarters for interviewing, with regard to privacy and comfort of the pupil.

(2) Be as familiar as possible before interviewing with facts concerning the pupil. Get first-hand information from parents, teachers, and pupil inventory.

(3) Arrive at a general estimate of the nature of the pupil's problem before the interview begins.

(4) Make a plan of the interview beforehand, with sufficient flexibility to permit quick adjustments.

(b) Initiating the interview

(1) Establish a good working relationship or "rapport."

(2) Get the pupil's point of view.

(3) Do not ask questions until the pupil is obviously ready to answer them.

(c) Conducting the interview

(1) Start with the pupil's strongest interests and build conversation around them.

(2) Uncover real problems as soon as possible.

(3) Be a good listener and draw the pupil out along consistent lines.

(d) Shaping the interview toward successful outcomes.

(1) Show real interest and faith in the pupil.

(2) Be straightforward and frank, not sentimental.

(3) Help pupil to face facts unemotionally.

(4) Promote self-examination and self-appraisal. Help the pupil to see himself clearly, his aptitudes, abilities, interests, personality traits, and motives.

(5) Get all the facts and interpret relationships.

(6) Build the pupil's self-respect. Never deflate his ego. Redirect his objectives when necessary as tactfully as possible.

(7) Let the suggested plan of action be that of the pupil. This may not be the last step in the problem, but help him to come to some minor decision concerning his situation. *Accomplish something.*

(8) Be specific in suggestions.

5. Terminating the Interview

(a) Summarize accomplishment of interview and stress action along lines suggested.

(b) Make definite appointment for next interview or leave opening for pupil to come again.

6. Recording Results of Interview

Record results of interview immediately after termination. Accuracy and vividness of detail, consistent with brevity, are essential.

7. Supplementing the Interview

(a) Check with others in regard to the pupil's problem.

(b) Check pupil's interests in occupations and extracurricular activities.

(c) Arrange for medical examinations if needed.

(d) Check previous scholastic records if necessary.

(e) Give or arrange for tests if deemed necessary.

8. Follow-up of the Interview

(a) Check periodically with teachers the progress pupils are making in relation to their participation in the High-School Victory Corps.

(b) Continue to work with those pupils whose programs are on a tentative basis.

(c) Secure reports of the progress of individuals in certain circumstances. (Example: The boy whose program has been expanded to include pre-flight aeronautics provided he maintains average grades in his regular mathematics and physics.)

V. ORGANIZATION AND ADMINISTRATION OF THE VICTORY CORPS GUIDANCE PROGRAM

THE PROBLEM of organization and administration of the Victory Corps guidance program is simply that of finding means of carrying out the proposals already described in preceding chapters.

The proposals suggested here for the individual school may appear narrow, or even inadequate, to some who may be thinking in terms of complete peacetime guidance programs. The wartime counselor of necessity will often be a novice at the job. On the other hand, certain proposals on the State level may involve provisions not now available. These and similar objections must be answered with the reminder that the emergency demands emergency measures. What must be done cannot wait for a counsel of perfection. But after all concessions are made, it is still possible, it is believed, to organize and carry on a local wartime guidance program which is simple, practical, and in conformity with sound professional principles. Most States, moreover, should be able to render the assistance required by local school systems by some readjustment of or addition to present State services.

An Outline of Organization

The organization in a locality of provisions necessary to carry on the wartime guidance program may include the following:

- A wartime counselor.
- A faculty committee of the Victory Corps guidance program (a subcommittee of the faculty Victory Corps Council).
- A local community advisory committee (a subcommittee of any Victory Corps community committee which may exist).

A local director of the wartime guidance program when a locality is large enough to require coordination of programs in several school units.

These local provisions should be reinforced on the State level as follows:

A State supervisor of the Victory Corps guidance program (identical with the State supervisor of guidance, if such an official now holds office).

One or more assistant supervisors according to the number and needs of the school systems of the State.

Provision for clerical service, travel, printing, and similar needs to make State supervision effective in all local school systems.

Wartime Counselor

The provision of one or more persons to perform the duties (see Section IV) of the wartime counselor is obviously of first importance in the Victory Corps guidance program.

When a school already has a counseling staff, this staff should, of course, be employed, with such modification of its usual duties as may be required in the emergency. In many large schools additional persons may be needed to carry on wartime activities.

When a school has no person now performing guidance functions, such an appointment is a serious responsibility of the principal. Almost all small schools and many larger ones face this problem.

The kind of person required may be estimated by a review of the duties (see Section IV) he must perform. Many compromises with a perfect matching of qualifications with duties must be made, and the smaller the faculty the truer this may be. In general,

however, it may be said that the wartime counselor ought to be a person who:

1. Is energetic and anxious to serve even though extra duties and strenuous activities both in school and in contacts with agencies outside the school are burdensome.

2. Has an understanding of the fundamental principles of guidance or can profit by in-service training in them.

3. Has demonstrated the ability to gain and maintain the confidence and respect of boys and girls.

4. Can work harmoniously with and gain the active cooperation of other faculty members.

5. Can make good contacts with community agencies.

6. Is interested in the welfare of boys and girls and can view their problems with sympathy without losing objectivity.

7. Has leadership qualities which will facilitate work with pupils, teachers, and community groups.

The following administrative suggestions as to the wartime counselor and his work will apply in various degrees to individual schools:

1. The wartime counselor should be designated by the superintendent or principal.

2. Five hundred pupils to one full-time counselor may be regarded as the maximum load, with additional assistance in the same proportion. Two or more part-time counselors are often at least as effective as one full-time counselor.

3. One hour a day for one person allotted to the special duties of wartime counseling in school hours should be provided in every school. If the principal appoints himself as wartime counselor, he should carefully schedule the requisite time for wartime counseling purposes or, if scheduling a specific hour is impracticable, prevent essential counseling activities from

being neglected in the pressure of general administrative duties.

4. Physical provisions to enable the wartime counselor to carry on his program should be made. The principal may establish a check list to discover what is desirable for this purpose by reviewing the previous three sections of this Manual. Often some modest financial provision for materials and incidental expenses will be necessary. Unofficial sources, such as school-connected organizations or civic clubs, may be of assistance when official school funds are not available.

5. The school principal should facilitate the in-service training of wartime counselors, especially those without experience, by making as generous provisions as possible for attendance at conferences held by State personnel, or local means of exchanging and organizing ideas and experiences.

6. The principal should facilitate the contacts of the wartime counselor with community, State, and other public and private agencies able to give information or other assistance with regard to military or civilian war services. The object is to provide an increasingly effective flow into the school of essential information and services.

The Faculty Committee

The wartime counselor is a servant of the faculty as well as adviser to the pupils. He will also need assistance in some of his activities from other members of the school staff. The facts he should be able to discover and present about the characteristics of the pupils enrolled and the demands for military and civilian war services will often suggest curriculum and schedule changes.

For all these reasons a faculty committee on the Victory Corps guidance program is an

essential part of organization. This committee may be appointed by the principal or elected by the faculty. When a high-school Victory Corps Council has been appointed for the school in accordance with the recommendations in Pamphlet No. 1, the faculty committee may be a subcommittee of the Council.

The following suggestions may be considered in setting up such a committee:

1. Size and composition of committee.

Three to five members, or at least a small enough number to facilitate frequent meetings and carry on business. In small schools the whole faculty may be included in the membership.

2. Functions.

- (a) Surveying present school practices in relation to the Victory Corps guidance program.
- (b) Advising on all policies and activities undertaken by the wartime counselor which imply the assistance of other teachers.
- (c) Reviewing implications of the wartime guidance program which suggest changes in subject-matter, schedules, and faculty policies.
- (d) Suggesting means by which the guidance program may be increasingly effective to the whole school and community in helping the school adapt itself to wartime demands.

The Local Community Advisory Committee

The school which has organized a Victory Corps will attain considerable importance in local employment and other wartime activities. Many of the collateral problems will be related to the school guidance program.

The employer, for instance, will need help in understanding the limitations of pupils'

availability for part-time work. The farmer may ask assistance in securing youth who have desirable characteristics to help him. The local defense council may need some advice as to using in-school youth in OCD activities in accordance with their aptitudes and abilities.

Under such circumstances a local community advisory committee may perform a useful function. Such a group may be a subcommittee of a larger Victory Corps city-wide council (see Pamphlet No. 1) or comparable local defense council. Where such a council does not exist, the advisory committee may be appointed directly by the superintendent of schools.

City-wide Director

The local school system containing two or more secondary units may require some means of coordinating the activities of the several schools. Sometimes a joint committee may serve. In other cases it may seem advisable to designate for this purpose some individual with central administrative standing.

The larger cities will almost certainly need a city wartime guidance director to assist the director of the Victory Corps. The wartime guidance director will find his duties largely defined for him by the demands of the school wartime counselors who are attempting to carry out the suggested program. In addition, the school system will want to economize the time and energy of agencies such as the local branch of the U. S. Employment Service from which assistance must be sought by consolidating requests and avoiding the separate approaches of several school wartime counselors. The office of the guidance director may also serve as a useful clearing house through which the individual schools may pool all their ideas and experiences wherever developed. This Office may also perform in a large school system many of the functions

described elsewhere in this publication as the functions of the State office for the smaller schools throughout the State.

Supporting State Services

The State organization chart in Pamphlet No. 1 suggests a State director for the High-School Victory Corps. In some States the State supervisor of occupational information and guidance has been given that responsibility. In others he has been appointed State supervisor of the wartime Victory Corps guidance program to assist the State director. In all States some State supervisory assistance to local school systems appears necessary. In the larger States a staff of more than one person is clearly needed if schools are to be served effectively and in time.

If the large urban school were the typical institution in our country, some justification might be advanced for depending on the resources available to the local school system for inaugurating and carrying on the wartime guidance program. On the other hand, statistics suggest the following as the characteristics of the "average" American school:

1. An enrollment of 200 or fewer pupils.
2. A faculty composed of a teaching principal and 4 to 6 teachers.
3. Situated in a small village or rural agricultural area.
4. Without a large war-production manufacturing enterprise in the immediate area.
5. Without a person trained in guidance on the faculty.
6. Limited contacts with the U. S. Employment Service.
7. Limited vocational training facilities and shops, except in the fields of home economics, agriculture, and certain aspects of business.

Clearly, whatever assistance may be needed in the large school, the usual small school must have considerable help in its wartime

guidance program and this help must be offered as nearly simultaneously as possible to all schools in the State because of the very nature of the emergency.

State Services for the Victory Corps Guidance Program

The needs of the local school system which may be supplied by a State Department of Education, will conform somewhat to the following list:

1. Assistance, probably through area conferences, in organizing basic wartime guidance services in the local school system.
2. In-service training on some area basis for wartime counselors in their emergency duties.
3. Assistance in developing counseling and individual inventory procedures, and in supplying forms and such tests and other material as may be found desirable.
4. Clearing house facilities for information which originates from sources outside the State with regard to needs for military and civilian wartime services.
5. Consultant services for individual communities to solve unusual problems, or those requiring joint action of some nature.

To supply these services, the following personnel is suggested:

- (1) In every State, a person designated as State Supervisor of the Wartime Guidance Program of the Victory Corps.

This person may be identical with some existing official. It should be recognized, however, that the duties involved require special background and training in the guidance field. Since every State contains one or more persons skilled to a degree in this respect, one of these individuals should be drafted as a State supervisor if necessary, rather than to depend for leadership in this important field on a person unable to qualify professionally.

(2) Assistant State supervisors as circumstances require. In those States with large school enrollment, the supervisor will need assistants. Needs will appear in two fields:

- (a) One or more assistants to carry on the clearing house procedures especially in occupational information phases of the State Wartime Guidance Program.
- (b) One or more assistants in field work, to help local school systems directly to inaugurate and develop their programs.
- (3) Clerical services as required.

Suggested Steps in the State Program

- 1. Designate a State staff.
- 2. Arrange area working-conferences to assist principals or wartime counselors in attacking local programs.
- 3. Provide for obtaining, organizing, and disseminating information on military and civilian war services, which pertains to the in-school enrollment and which originates nationally, or outside the State. Much of this must be processed in some way, since the original material will be insufficient in quantity to supply copies directly to schools.
- 4. Provide for adequate liaison on the State level with agencies such as the War Manpower representatives; higher institutions of learning; agricultural organizations; State OCD Council; Selective Service authorities; military recruiting agencies; war-production training programs, such as the Engineering, Science and Management War Training Program and the Vocational Training for War Production Workers; and other agencies relevant to wartime programs.
- 5. Arrange a continuing program of supervision to make the Victory Corps guidance program increasingly effective.

6. Establish working liaison with Federal agencies, especially the Occupational Information and Guidance Service of the U. S. Office of Education, for continuing assistance and information.

Relation of a Guidance Program to the Curriculum and Training Program of Schools Organized for the Victory Corps

Certain relationships indicate that the organization of a wartime guidance program as outlined in this publication may be regarded as prerequisite to the successful organization of the Victory Corps program of courses and training:

1. Curriculum adjustments must reflect emergency needs which are constantly changing.

Obtaining information as to the kinds of military and civilian war needs is a suggested function of the information phase of the guidance program.

2. The number of persons required in any category of military and civilian war needs influences the scheduling of class sections and teachers.

Securing information about numbers required is a suggested function of the guidance program.

3. Providing highly specialized courses and training involves selection for such purposes of pupils able to satisfy the mental and physical qualifications involved.

The guidance program has the function of inventorying the school enrollment.

4. Securing the individual choices of pupils as to courses and training is a difficult prerequisite to organizing classes and assigning teachers.

The counseling phase of the guidance program provides for this process.

5. In small schools especially, the Victory Corps program may deal with only

one or two individuals for any particular military or civilian war service.

The guidance program identifies individuals in relation to their possible objectives.

6. Relations with higher institutions and the military services emphasize classification and selection procedures.

The guidance program provides comparable procedures in the schools.

7. Modifications of the curriculum will also reflect local needs arising both from industrial and agricultural war-production demands and from community labor demands brought about by the displacements of direct war production.

The guidance program suggests means of identifying these needs.

Federal Relationships

The Occupational Information and Guidance Service of the Vocational Division of the U. S. Office of Education will render any assistance in its power to State departments of education in solving guidance problems connected with the High-School Victory Corps. Individual school systems and institutions should first seek help from their respective State departments of education, which may refer such requests as they desire to Washington for further assistance.



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★ It is expected that additional copies of this pamphlet may be needed by many high schools. They may be secured from the Superintendent of Documents Washington, D. C.

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COMMUNITY WAR SERVICES

and the

HIGH-SCHOOL VICTORY CORPS



VICTORY CORPS SERIES

PAMPHLET NUMBER 5



United for Service

COMMUNITY
WAR SERVICES
and the

HIGH-SCHOOL VICTORY CORPS

[Harrison Monell "Syria"]

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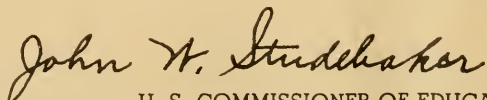
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FOREWORD

The High-School Victory Corps is designed to mobilize secondary school students for more effective preparation for and participation in wartime service. Preparation for community service occupations, such as teaching, nursing, business and store service, is recognized as the basis for membership in the Community Service Division of the High-School Victory Corps. Participation in wartime community service activities is recognized as a condition for general membership in the High-School Victory Corps.

Many requests have been received for a statement, supplementary to that contained in Victory Corps Series, Pamphlet No. 1, amplifying somewhat the suggestions contained in that pamphlet concerning community war services of students and the relation of such services, under whatever auspices performed, to the framework of organization described in the High-School Victory Corps Pamphlet No. 1.

This statement has been prepared by Harrison M. Sayre in collaboration with Richard M. Fagley and Frederick H. Lewis of the Office of Civilian Defense, and representatives of other governmental agencies; and with the critical suggestions of representatives of various private youth-serving organizations. It is issued with the approval of the National Policy Committee of the High-School Victory Corps in the hope that this more definitive statement of the relationship of the High-School Victory Corps to these agencies and organizations and their activities in local communities may prove helpful.

A handwritten signature in dark ink, reading "John W. Studebaker". The signature is fluid and cursive, with the first letters of each word being capitalized and prominent.

U. S. COMMISSIONER OF EDUCATION.

TEN **GUIDING PRINCIPLES**

It must be frankly recognized at the outset that no general statement concerning the relationship of the High-School Victory Corps to Community War Services can do more than to state certain guiding principles. The interpretations of these principles and their application in the thousands of high schools, large and small, public and private and in the cities, towns, villages, and rural areas constituting the communities served by these schools are the responsibility of the school authorities in the local communities.

Most of the guiding principles here stated are implicit in the High-School Victory Corps, Pamphlet No. 1, which presents in broad outline a suggested pattern of student organization for the high schools of the Nation. The aim of this pamphlet is to reiterate these principles and to state them more explicitly as they relate to the Community War Services of Students.

1. Opportunity should be provided through the schools for all in-school young people to participate in an organized fashion in the Nation's war effort.
2. The school organization of students for the purpose of participation in the Nation's war effort should be under the control of school authorities who should consult with the local Defense Council and extra-school community agencies in planning and supervising the community war services of student groups.
3. The High-School Victory Corps, as a wartime student organization, is designed to encourage and guide the voluntary activities of students in wartime services.
4. Encouragement and social recognition of students are provided in terms of their acceptance for and continuance of general membership in the High-School Victory Corps, one important condition for membership in which is participation "in at least one important continuing or recurring wartime activity or service." In evaluating student activities for the purpose of deciding whether any particular student meets this condition the school will necessarily consider any and all wartime service activities of the student whether these activities be carried on under the auspices of the school, under other auspices, or under no organizational auspices whatever. In other words, the school's recognition in terms of general membership in the High-School Victory Corps is given for the activity of the student without regard to the auspices under which it may be carried on.

5. Voluntary participation in movements to promote the general welfare is the ultimate test of civic attitudes. Community war service activities are therefore recognized as being an elementary civic responsibility of all members of the High-School Victory Corps and, indeed, of every member of the high school. They should be made meaningful and purposeful to students by study and discussion in school classrooms. They thus become an integral part of the school's civic education program.

Says the Educational Policies Commission: "If the school can relate its work closely to the life of the community, it will greatly increase the effectiveness of teaching, for learning is always facilitated when the learner is aware of the 'reality' of the problem with which he is dealing. If the school can bring more significant 'out-of-school' experiences into the school program, it will infuse more vitality into all of its activities."¹

6. Students should have an opportunity to help plan the community service activities which they are expected to carry out. Again, the Educational Policies Commission points out: "Only when students share largely in making important decisions as to what they shall do, and particularly as to how they shall attack some community problem in order to solve it, does participation in community activities assuredly become education for democratic citizenship."²

7. The relating of school instruction and training to war service activities of students requires judicious planning by school officials and teachers. For example, work experience may properly be regarded as an important aspect of community service activity. Work experience is also properly to be regarded as an integral and important part of the educative process, whether it be paid or unpaid, whether it be in the factory, store, office, at home or elsewhere in the community. If work experience is to be given suitable recognition either in connection with community service activities or as a part of the educational program of the school, school authorities must make this possible by administrative arrangements for student counseling and for placement; and by approving schedule modifications for individual students, and even allowing limited credits toward graduation.

8. The Victory Corps program in the schools must be an integral part of the wider community war effort. The local Defense Council is designed to be the coordinating center for the community's voluntary war services. The High-School Victory Corps needs therefore to be closely related with the Defense Council's program in general, and with its Citizen Service Corps in particular. This may be accomplished in terms of proper representation on the Superintendent's Community Advisory Committee for the High-School Victory Corps by the local Defense Council; and on the Council or its appropriate sub-committees by the Victory Corps School or All-city Council. (See appendix for a full statement of the general framework of cooperation suggested.)

¹ Learning the Ways of Democracy, p. 263.

² Ibid., p. 328.

9. A large variety of service activities are already being engaged in by high-school pupils who are members of existing youth organizations. It is not intended that the High-School Victory Corps will duplicate or supersede the programs of these organizations. On the contrary, the war service activities of these organizations and of the High-School Victory Corps should complement and reinforce each other. The value of cooperation between public and private agencies has been proved by the success of the British war service program for youth. Wherever and to whatever extent possible the facilities of existing organizations should be used in the interest of the war effort.

Any seeming competition between the school groups and the voluntary youth organizations of any community will probably appear in claims upon the time of youth. This problem can usually be handled satisfactorily if community youth organizations are represented upon the Superintendent's Community Advisory Committee of the High-School Victory Corps; and if cordial and cooperative relationships between the schools and youth organizations have been built up over the years.

10. More than half of the students enrolled in American high schools belong to no voluntary youth organization outside of school. The school authorities have a special responsibility for these youth. Through the High-School Victory Corps they may be organized into service squads for community war service; or they may often be encouraged to affiliate with existing voluntary youth organizations. The High-School Victory Corps is a temporary or emergency pattern of organization. The voluntary community youth organizations are more permanent in character, with long-time programs of character building and good-citizenship as their goal. Both should join hands in accelerating, intensifying, and improving their programs in the interest of the war effort to whatever extent is possible in the particular local community.

SOME **COMMUNITY WAR SERVICES**

The previous section presented 10 guiding principles concerning the relationship of the High-School Victory Corps to community war services. In this section are presented some illustrations of community war services in which high-school youth have been engaging as members of voluntary youth organizations in communities throughout the Nation. These illustrations are meant to be suggestive to school officials and others of the variety of types of war service participation which may be appropriately recognized as bearing upon the qualifications of the particular youth for general membership in the High-School Victory Corps even though carried on under the auspices of extra-school organizations. The illustrations do not pretend to present a complete picture of all possible types of youth service activities nor has an attempt been made to evaluate the programs conducted by the organizations represented.³

Some of the community war service activities listed have been carried on under the auspices of the schools in cooperation with the local Civilian Defense Councils through their Citizens Service Corps units. The Citizens Service Corps of the Civilian Defense Council is charged with the responsibility for coordinating the civilian war service activities of civilian volunteers. To join the Citizens Service Corps candidates must be qualified in one of three ways: (1) By completing a prescribed training course approved by the Defense Council; (2) completing a period of apprenticeship agreed upon by the volunteer office of the local Defense Council and the agency using the volunteers; or, (3) by 50 hours of volunteer work in a position approved by the volunteer office. The Educational Policies Commission of the National Education Association suggests that it is doubtful whether high-school students should register as individuals at local Defense Volunteer Offices . . . "If each high-school student is allowed to volunteer as an individual for out-of-school war activities many may undertake too much and dissipate their effort."⁴ However, it should be possible for groups of high-school youth to register with the volunteer office of the local Defense Council for appropriate types of volunteer service and in some instances to qualify as members of the Citizens Service Corps. Those responsible for organizing a High-School Victory Corps in any community should consult with the local Defense Council concerning this matter. In a number of cities there are active Youth Councils which can help to unify the various service activities of community youth

³The examples cited are taken from a number of sources, among which particular mention should be made of "Learning the Ways of Democracy," "Secondary Education and the War," and "Youth Has a Part to Play."

⁴A War Policy for American Schools, p. 40.

organizations. The Education Committee of the local Defense Council, charged with coordination of services rendered by young people in or out-of-school, should be helpful in coordinating the activities of youth organizations with the High-School Victory Corps. No single pattern will serve equally well in all communities. The important thing is to take advantage of whatever sound cooperative machinery has been built up for youth work in any community during the war or in the years preceding.

The purpose of these illustrations is to indicate the extent to which the kind of activities reflected in them are under way throughout the country for the general suggestive value this listing may have. No attempt has been made to describe activities in detail. It is assumed that any reader who is interested particularly in any one of the illustrations will write to its source for further information.



Camp Fire Girls Bring in the Scrap

SALVAGE FOR VICTORY PROGRAMS

- Energetic young people to help organize and conduct salvage drives in organizations and neighborhoods.
- Collectors for certain types of scrap.
- Clerks to help list agencies collecting scrap or desiring to help.
- Instructors on how to salvage certain types of scrap.

- Longmont, Colo.:** The Future Farmers of America built a special body for a truck loaned by the high school for collecting scrap.
- Delaware:** Future Farmers of America, in cooperation with a Kiwanis Club and a commercial firm, collected 2,000 burlap bags that were turned over to the Army, filled with sand, and used as protection for the Army's guns.
- Lancaster, Pa.:** The Boy Scouts, the week after Pearl Harbor, collected 11 tons of old newspapers.
- Houston, Tex. and Lorain, Ohio:** The Aleph Zadik Aleph group collected old license plates.
- Westfield, N. J.:** The Hi-Y continued a tradition of 18 years' standing of "Paper Day." Proceeds from the tons of paper collected are given to charitable organizations.
- Binghamton, N. Y.:** The Boys' Club promoted a collection plan whereby members were allowed 10 days to bring in: 1 pound scrap rubber, 5 phonograph records, 2 golf balls, 10 different metal bottle caps, 1 old license plate, and other items.
- Germantown, Pa.:** The Boys' Club brought in 16,000 pounds of paper, 520 pounds of scrap rubber, and 500 pounds of tin.
- Norfolk, Va.:** The Boys' Club hauled 1,600 pounds of waste rubber from the mud flats of the Lafayette River.
- New York City:** Boys' Club volunteers conducted a piano-collecting drive which yielded 124 instruments. When these were dismantled they produced 15 tons of scrap metal.
- Greenfield, Ind.:** Over 800 Boys' Club members, using carts, trucks, baby carriages, and other conveyances, made a block-by-block canvass collecting 296,000 pounds of paper.
- Oconee, Ga.:** From this crossroads community of 300 people, a Boy Scout troop squeezed out 11,000 pounds of scrap rubber.
- Chariton, Iowa:** The Boy Scouts, aided by 25 trucks, gathered 80,000 pounds of scrap rubber in 1 day.
- Oshkosh, Wis.:** More than 100 key collection cans were placed in "key" spots around the town by Camp-Fire Girls and were later collected by them.
- Pittsfield, Ill.:** High-school students canvassed the community for scrap metal. They canvassed the school for farm help and gathered a list of boys who would be available.
- Charleston, W. Va.:** The student council of the high school developed a plan to collect scrap metal. Cartons were put in each classroom and a baling machine was purchased and paid for by sale of the paper collected. Members of the school's Hi-Y sponsored a school-wide collection of coat hangers.

Green Bay, Wis.: The Youth War Service Club of the high school has taken on responsibility for the salvage campaigns as well as for war stamp sales, victory gardens, and conservation.

Keene, N. H.: The entire high-school student body has been cooperating in the collection of paper and magazines. The money derived from the sale of more than 50 tons of this material was turned over to the Junior Red Cross chapter.

Monument, Colo.: The students of the Consolidated School have entered actively in the collection of scrap metal, tin foil, and other needed materials.

Marion, Va.: Adopting the motto "Save Something, Produce Something," high-school students canvassed their entire student body to find out just what each student was doing to help the victory effort by salvaging scrap iron, razor blades, tin foil, copper utensils, metal tubes, rags, rubber, and paper.

Joplin, Mo.: Silk and nylon hose were collected by Girl Reserves and sent to Women's Voluntary Committee in St. Louis to be reprocessed.

Butte, Mont.: The Camp-Fire Girls have sponsored 4 grease-salvage drives, one of which resulted in the collection of 4,500 pounds of waste fat.

Missoula, Mont.: A joint drive of the Camp-Fire Girls and Girl Reserves for a collection of grease began with a free matinee for grade-school children at a local theater with one coffee can as a ticket for admission. Printed labels were then placed on the lids of the cans, and a house-to-house canvass for grease was made.

Phoenix, Ariz.: The Kit Carson Y Pioneer Club took the responsibility of organizing the salvage work in the high school. The members of the club have averaged a ton each.

Dumont, N. J.: The Hi-Y was designated to take charge of the salvage program of the High-School Victory Corps. School was dismissed for a day, and in 6 hours 55 tons of scrap were collected.

Columbus, Ohio: A Scrap-Happy roller-skating party, admission to which required the bringing of scrap, was conducted by the Camp-Fire Girls and resulted in a huge pile of the needed metal for the war effort.

Tucson, Ariz.: Members of the high school salvaged 2,000 coat hangers which were given to a nearby army post in response to an SOS call.

Boston, Mass.: High-school young people at a local Settlement House made a census of all the iron fences in the south end of town, and, as a result of their work, the owners were approached by the city committee and turned in the fences for scrap.

Ellington, N. Y.: Members of the Junior Grange hired a truck and went about the community collecting scrap paper, metal, and rubber.

Springfield, Mass.: When 15,000 quart cans of tainted tomato juice were condemned by the Federal Court, members of the Boys Club salvaged the cans, poured out the juice, removed the labels, cleaned and flattened the cans.

Redlands, Calif.: Grimy, soot-ridden Scouts worked an 8-hour, three-bath day for the Nation's rubber drive. The boys removed thousands of pounds of rubber strips from smudge pots used to kindle fires for heating orchards. The orchard foreman gave the Scouts permission to salvage all the rubber they could from a stack of smudge pots 30 feet square and 15 feet high.

Monterey, Calif.: Sea Scouts salvaged 2,600 pounds of rubber from the waters surrounding Monterey's piers.

Atco, N. J.: The Scouts found a junkman who was about to reclaim some copper wire by burning off its rubber covering. The Scouts got his permission to keep all the rubber they could strip off. They salvaged it all—6,000 pounds.

Rochester, N. Y.: The Scouts collected 537,000 pounds of waste paper, 74,421 pounds of rubber, and participated in the aluminum drive.

Twin Harbors, Mich.: The Cubs and Scouts covered 11 communities and collected approximately 33,640 pounds of aluminum, 431,060 pounds of waste paper and approximately 100,000 pounds of rubber. They later cooperated with oil companies in a "Clean-up" drive and collected an extra 4,911 pounds of rubber. In July 1942 they collected approximately 3,000 burlap bags, 500 apple boxes, and aided American Legion Auxiliary in collecting old rags.



A Boy Scout Treasury Salesman

WAR STAMP AND WAR BOND SALES

- Salesmen for stamps and bonds.
- Leaders to instruct younger boys and girls for sales campaigns.
- Artists to make war bond posters.
- Promoters of youth budgets for regular war savings.

- Caddo, Okla.:** The Future Farmers of America Chapter purchased a \$50 bond with money raised doing odd jobs. More bonds will be bought from the proceeds for 4 barrow hogs, being fed at the High-School building where scraps from the lunch boxes and feed donated from FFA members will soon have them ready for market.
- Bismarck, Ark.:** Future Farmers of America members have bought a \$50 bond with money earned at community and county fairs.
- Hammond, Ind.:** The High-School students, in connection with "100 percent All-Out Participation in the War Effort Day" asked every student on that day to buy a war stamp.
- Leonia, N. J.:** A booth at all home football games was manned by Hi-Y boys who sold several hundred dollars' worth of stamps.
- North Tonawanda, N. Y.:** A war stamp and bond campaign by the Girl Reserves at a local theater met with great success.
- Waco, Tex.:** 92 Camp-Fire Girls worked on shifts of 10 per day at 3 local theaters selling bonds and stamps. The total sales were \$59,950.
- Long Beach, Calif.:** Camp-Fire Girls operate war stamp and bond booth in the high school.
- Spokane, Wash.:** Horizon Club members of the Camp-Fire Girls were glad to cooperate when called upon to assist with the sale of bonds upon the occasion of the visit of some of the movie stars to Spokane.
- North Adams, Mass.:** In order to increase the sale of war stamps in their high school, "Minute Men" went about from room to room where sales were not 100 percent and brought many of the rooms up to this figure.
- Asheville, N. C.:** The student government association of the high school set a goal for the sale of war stamps and bonds of \$2,800. They went over the top to collect \$3,200.
- Cleveland, Ohio:** Students of one high school, under the direction of the Student Council, stimulated the buying of stamps by making posters, announcements in assembly, and by direct sales to students and teachers.
- Albuquerque, N. Mex.:** High-school students made posters as promotional material for the selling of stamps and bonds not only in the high schools but in the community.
- Erie, Pa.:** Students of the high school have a stamp store that operates daily. The art classes have made posters for the bulletin boards in each classroom, in the corridors, and in the cafeterias to encourage the students to buy war stamps and bonds.

New York City: Members of the YMHA have organized a savings stamp plan whereby their members are enabled to purchase war stamps through their club.

Wausau, Wis.: As their part in the "Women at War Week", Girl Reserves conducted a campaign to sell stamps and bonds during that time and sold over \$39,000 worth.

Beverly Hills, Calif.: More than 125 students in the high school put on a pageant on Armistice Day for the sale of stamps and bonds. They were successful in selling \$37,000 worth to those in attendance.

Detroit, Mich.: A Victory Bank conducted by one of the high schools succeeded in producing a sales record of \$40,000 in 14 weeks.

Newark, N. J.: The band in one of the high schools has given up its usual football activities to parade weekly through the neighborhood to publicize the sale of war bonds and stamps.

Green Bay, Wis.: City newspapers were attracted by the novel display of posters made by the students in the high school publicizing the need for buying war stamps and bonds.

West Salem, Wis.: Enlisting the support of several civic organizations and local newspapers, the high-school band conducted a BOND-bardment in which they gave a concert, admission to which required evidence of a purchase that day of a war bond.

Anaconda, Mont.: High-school students conduct Special-Week appeals for purchase of stamps and bonds based upon tribute to one of our wartime leaders. They also operate a bank with a teller for each home-room.

Tallahassee, Fla.: One class of the local high school staged a house-to-house canvass to sell war stamps; and in one neighborhood discovered many persons who were making their first purchases.

Greenville, Tex.: Admission in stamps and bonds are required not only of the audience, but of performers at concerts put on by high-school students.

Cleveland, Ohio: Students write the scripts and produce radio programs presented by station WGAR for the purpose of promoting stamp and bond sales.

Portland, Maine: \$4,000 worth of War Bonds and Stamps were sold by Scout Troop 28 in a 9-day campaign. The Troop set up a camp scene and handicraft display in two grocery windows and operated a booth inside the market. When a customer ordered a bond, a Scout dashed one block to the Post Office for it.

Berkeley, Calif.: The Scouts distributed 1,530 small placards "Buy War Defense Bonds" and 2,148 large placards "Buy War Defense Bonds" from the U. S. Treasury Department.



Girl Scouts Mend Clothes for Red Cross Distribution

FAMILY SECURITY SERVICES

- Receptionists and clerical helpers for family welfare agencies.
- Young people to collect and repair clothing for welfare centers.
- Information assistants for Travelers' Aid Societies at terminals.
- Mature young people to visit newcomers in war industry communities.

- Tulsa, Okla.:** The Girl Scouts invite new students in the school to special events of their troops. "Newcomer" booklets are distributed in strategic places, and are given to any new arrivals in the city.
- Kossuth County, Iowa:** The Junior Red Cross chapter staged a patching party in which they used faded patches to match used material, fitted new pieces on work socks to make them last longer, darned 3-cornered tears.
- Florence, Ala.:** Students at the high school, after discussing the matter with the local WPA, assisted a needy family by repairing the chimney of their home, building sanitary facilities, and doing other repair work. Other students have a hospitality committee which visits the homes of newcomers in the community.
- Clarkesville, Ga.:** Volunteer youth from a metropolitan area who were members of a nearby "Work Camp" initiated a program of rehabilitating the homes in a destitute area.
- Bucks County, Pa.:** The Girls Social Guild of the Friends' School keeps in touch with local relief agencies and furnishes aid to families in need living in nearby villages.
- Ypsilanti, Mich.:** Junior and senior girls of the high school have organized to offer their services to homes where sickness, death, or other misfortune strikes.
- Shaker Heights, Ohio:** High-school students, cooperating with the Council of Social Agencies, study the food, clothing, and health requirements of needy families. Though not giving the name of the family, each class takes responsibility for meeting its needs on the basis of information supplied by the Council of Social Agencies.
- Pawtucket, R. I.:** Girl Reserves are indexing and filing source material, a case worker's library, for the Public Welfare Agency. They also read to shut-ins, shop for people unable to get to the markets, get food stamps for them, and go to Providence for supplies—all work that would require the time of paid personnel.
- Portland, Oreg.:** Names of girls of high-school age were secured from the local Newcomer's Service by Girl Reserves who invited them to a newcomer's party at the YWCA.
- Vallejo, Calif.:** A neighborly service was rendered newcomers in the Federal Housing Unit by Camp Fire Girls who brought to them slips of shrubs, roses, and other plants for their gardens.
- Philadelphia, Pa.:** High-school students belonging to a Student's Volunteer Service group gave 50 hours each in important agencies of the United Charities, working as child-care assistants, typists, group leaders, and clerks in 39 different agencies.
- Dallas, Tex.:** A carefully worked out project with the child welfare agency carried out by youth in one of the local churches included repair and painting of toys, recreation for children being taken care of by the agency and the supplying of money for special needs of these children.

Washington, D. C.: Church young people became interested in underprivileged colored children in the city and provided milk for them during the winter months.

Boston, Mass.: A group of church young people have volunteered to assist a local Negro community center in its maintenance problems.

Newark, N. J.: As a result of the effort of Christian Endeavor groups, summer camps have been established for needy city children.

Lawrence, Mass.: The Scouts packed and delivered gifts for the needy at Boys' Club.

Rochester, N. Y.: The Scouts prepared and distributed Christmas baskets and toys to needy children.



A Day Care Worker From the Victory Corps

CHILD CARE SERVICES

- Trained young people to assist in the care of children.
- Helpers to care for children in hospitals and institutions.
- Assistants in neighborhood nurseries and playgrounds.
- Escorts for children to and from nurseries.
- Workers in sewing, knitting, and reconditioning projects for children's clothing.
- Young people to collect and repair toys.
- Youth representatives to survey wartime needs of children and to secure support for essential child-care programs.

- New Haven, Conn.:** The Girl Scouts have made use of scraps of outing flannel, muslin, and red flannel left over from the Red Cross sewing groups to make dolls, coats, berets, beanbags, toys, and stuffed animals for children.
- Cody, Wyo.:** The Girl Scouts have a play room where, on Saturday afternoon, they take charge of small children up to 8 years—children of farmers and ranchers—caring for them while the parents do their marketing.
- Flint, Mich.:** The Girl Scouts use backyards for summer play groups of little children which are directed by a Scout who has received special training for this job.
- Shreveport, La.:** Girl Scouts operated a Toy Library all summer. They prepared for this by learning game leading, song leading, storytelling, book repairing, and reading aloud.
- Philadelphia, Pa.:** High-School students operated a "Toddler's" nursery as a service for mothers in defense work.
- Elmira, N. Y.:** As a result of an intensive training course sponsored jointly by the Girl Reserves and Girl Scouts in cooperation with the United States Employment Service, girls completing the course are registered with the U. S. Employment Service and are being sent to work in areas where they may be needed.
- Kodiak, Alaska:** A "Mother's Helper Agency" was organized by the Camp Fire Girls who charged so much an hour for taking care of children. 10 percent of the fees were returned to the "agency"—or group treasury.
- Minneapolis, Minn.:** High-school girls in the School of Agriculture, University of Minnesota, spend one afternoon a week in a private home observing the mother and helping her care for her children.
- Buffalo, N. Y.:** Students at a private school annually recondition approximately 5,000 toys and distribute them through regular welfare channels.
- Skyline, Ala.:** Toys are made in the school shop and distributed through the school library, charged out in the same way books are.
- Minneapolis, Minn.:** When a reduced budget would have caused the city to close the playgrounds, the Girl Scouts took entire charge of them for the summer in order to keep the project running.
- Cambridge, Mass.:** Students joined their teachers in providing a summer recreational program for less fortunate children and in maintaining smaller playgrounds for city children on winter Saturdays.
- Baton Rouge, La.:** Using training received as Junior Volunteer Recreation leaders, the Camp-Fire Girls are now assisting in nurseries and on local playgrounds with children whose mothers are busy in war work.

- Linnell, Calif.:** The Girl Scouts helped run a day nursery for children of farm workers when mothers were pressed into farm service because of the agricultural labor shortage.
- Portland, Oreg.:** The Civilian Defense Volunteer Office is placing Camp-Fire Girls who have passed a course in child care given at a local Play School in afternoon and holiday service.
- Pawtucket, R. I.:** Girl Reserves who have received a month's training or more are put in charge of late-afternoon classes at a local day nursery under an adult supervisor.
- Trenton, N. J.:** Camp-Fire Girls have taken a course in the care of babies and have been able to use their knowledge to good advantage in taking care of smaller children while mothers were busy.
- Arlington, Va.:** A neighborhood organization has been set up whereby older children have taken younger ones to the trailer clinic for inoculations and escorted them safely home again.
- Mount Clemens, Mich.:** Opportunity for putting into practice child-care training which they received in the Girl Scout program was provided for the girls at the city playgrounds.
- Burlingame, Calif.:** Members of the Junior American Women's Voluntary Services are active in nursery work with the local hospitals.
- San Francisco, Calif.:** The Junior Auxiliary of the American Women's Voluntary Services has organized girls in the schools to help in public and school playgrounds.
- Kingsport, Tenn.:** After making a survey of the city and discovering the great numbers of children left alone during the day, the Christian Youth Council opened a day nursery for Negro children whose mothers were employed.
- Memphis, Tenn.:** A group of young people in one of the churches provided toys and equipment for a local nursery school for Negro children and sent 125 presents to Japanese-American children in Relocation Centers.



Girl Reserves Roll Plaster Bandages

HEALTH AND HOSPITAL SERVICES

- Workers in the Junior Red Cross, preparing first-aid and hospital supplies.
- Young people to prepare or collect additional supplies for hospitals, as waste containers, corks, flowers, medicinal herbs.

- Receptionists and messengers in health departments, hospitals, medical social service centers.
- War assistants to direct visitors, arrange flowers, run errands.
- Workers in hospital supply rooms and libraries.

Los Angeles, Calif.: Junior Red Cross high-school students, immediately after Pearl Harbor, worked through the holidays to complete 3,000 stretchers, 6,000 stretcher stands, 250 first-aid cabinets, and 300 operating tables for use in possible emergency.

Cedar Lake, Ind.: Camp-Fire Girls have made 18 scrapbooks and 6 paper doll houses for the Tuberculosis Sanitarium at Crown Point and for the children's ward of a county hospital.

Rockford, Ill.: Girls Scouts have a "Blitz Brigade" which operates a canteen training service for the Red Cross and serves large groups.

Elizabeth City, Mo.: The Boys' Club made 30 folding cots for first-aid centers and clinics.

Kansas City, Mo.: The Junior Red Cross made a trailer into a mobile canteen, accommodating 12 workers and feeding 1,500 persons. It was used first to feed soldiers at an Army Day celebration.

Binghamton, N. Y.: The high-school students made afghans, lap covers, and games for hospital use.

Phoenix, Ariz.: Members of the Hi-Y organized a collection of books for the hospital library amounting to over a thousand copies.

Norwich, Conn.: Refuse bags now difficult to procure were made of newspaper by Girl Scouts.

Fryeburg, Maine: Students of the local Academy have been making layettes, stockings, helmets, and sweaters for the Red Cross.

Philadelphia, Pa.: The high-school students have been making knitted squares as well as ash trays and first-aid materials for use in hospitals.

Chanute, Kans.: The school music organizations, in giving a number of programs on a community-wide basis, have raised money for the Red Cross.

Washington, D. C.: Girls in a private school are giving regular services in hospitals—arranging flowers, acting as receptionists, etc.

Greeley, Colo.: Many of the students in the high school are helping nurses both for the service they can give and as preparation for qualifying as nurses' assistants.

San Francisco, Calif.: Hi-Y boys have built a 3-room hospital for a local Y. M. C. A. summer camp.

Knoxville, Tenn.: 115 Girl Reserve Hospital Aides were busy helping at three hospitals. These senior high school girls relieve over-burdened nurses and other hospital employees as they assist in wards, in diet kitchens, and at reception desks, sweeping, making unoccupied beds, and folding bandages.

East Orange, N. J.: At the Orthopedic Hospital, Girl Reserves help take off plaster casts, make plaster bandages, take charts back and forth, deliver mail, and act as desk hostesses.

Harlan, Ky.: Girls of a settlement school help to organize health clinics, visit homes with school nurses, and deliver medicines.

Grand Rapids, Mich.: Under the direction of the Office of Civilian Defense and Red Cross, 51 Camp-Fire Girls are working regularly after school and in the early evening in two of the city's largest hospitals. They act as messengers and work in the operating rooms under the supervision of hospital nurses.

San Antonio, Tex.: The Boys' Club has constructed 20 emergency hospital screens for the Red Cross and has also made 6 collapsible stretchers for the local defense council.

St. Louis, Mo.: 40 Senior Girl Scouts serve daily at St. Mary's Hospital running errands for physicians, setting up serving trays, wrapping up microscopic plates, and doing other detail work for nurses.

Puerto Rico: Girl Scouts have made over 200 stretchers from bamboo poles and empty burlap and flour sacks which they collected. They have also made gauze squares from old mosquito netting, roller bandages, and slings from old sheets, and splints from empty boxes.

Springfield, Mass.: Senior Girl Scouts responded to a call for help from the local hospital to serve as junior nurses' aides. The Scouts are on duty from 4 to 6 o'clock each week-day to help prepare children patients for supper, serving meals, and feeding those unable to help themselves.

Binghamton, N. Y.: Girl Scouts have been making comfortable bedroom slippers out of newspapers for hospital patients. They also make candles by wrapping newspapers firmly, tying them firmly, and then dipping them in paraffin.

Delaware County, Pa.: The Girl Scouts collected and laundered old linen which they made into bandages, slings, and emergency dressings to be stored at the various county hospitals.

Cabell County, W. Va.: Members of the Junior Red Cross remembered men in Government hospitals with cigarettes, books, cartoons, placques, calendars, and matches in decorated folders.

Providence, R. I.: When the Red Cross ran out of buttons for garments, the Boys' Club went out through the city and collected a supply.

Trenton, N. J.: One of the hospitals has trained members of the Boys' Club to be emergency hospital attendants.

San Francisco, Calif.: Boy Scouts go on duty at Disaster Relief Stations on all calls and "alerts." They also perform week-end duty as aides and orderlies.

Lawrence, Mass.: The Boy Scouts assisted in moving furniture and distributing posters for the Tuberculosis League.

Rochester, N. Y.: The Boy Scouts distributed Red Cross literature in connection with their annual membership drive.



Girl Scout Pours for School Lunch

NUTRITION SERVICES

- Artists to make nutrition posters for store windows.
- Experienced youth in group-feeding projects for children of employed mothers.
- Helpers in community kitchens serving war workers.
- Assistants in American Red Cross canteens.
- Representatives on local Nutrition Committee or youth subcommittee, working on community programs.
- Trained young people to survey the nutrition needs of youth in the community.

Port Chester, N. Y.: **Hartford, Conn.:** The Girl Scouts have been getting practice in preparing food for large numbers by serving meetings of air-raid wardens.

Ayer, Mass.: The Girl Scouts have prepared food and sold it to the wives of soldiers and officers and others doing light housekeeping

Washington, D. C.: The Girl Scouts sell food to men in uniform from a self-operated canteen.

Seattle, Wash.: For four different community groups the Camp-Fire Girls planned the menus, marketed for the supplies, cooked and served four different kinds of dinners that were appetizing, nutritious, and economical.

Oklahoma City, Okla.: At the request of the County Nutrition Board, booklets on proper eating habits, nutrition of foods, etc., were distributed to offices of doctors, lawyers, dentists, and other business offices.

Kansas City, Mo.: Girl Reserves have made careful study of food and diet, including a survey of what high-school students ate for their luncheons over a given period of time, and have conducted a campaign to make their findings available.

Philadelphia, Pa.: During the first test mobilization, Girl Scouts carried to places where groups gathered, emergency meals which they had prepared themselves, and which they distributed to the hungry crowds.

Malden, Mass.: A canteen was presented to the City of Malden by the Girl Scouts with money raised in collecting old metals, paper, and rubber.

Washington, D. C.: Girls of the Junior American Women's Voluntary Services have been helping with children's luncheons at a local settlement house.

Mount Vernon, N. Y.: Junior Red Cross students of the high school made crab-apple, peach, and grape jelly for an old ladies' home in the city.

Oakland, Calif.: A highly successful project on nutrition training and services as well as on other wartime community services has been carried out jointly by the Girl Scouts, Camp Fire Girls, Junior American Women's Voluntary Services, Girl Reserves, and Red Cross.

Portland, Oreg.: When the Multnomah County Disaster Leaders held a training course for 400 men and women from various organizations within the County, Boy Scouts and leaders prepared the noon meal.



Camp Fire Girls Shop for War-Working Mother

CONSUMER PROGRAMS

- Assistants to War Price and Rationing Boards.
- Promoters for car-sharing projects.
- Organizers to develop exchanges for scarce necessities.
- Workers in projects to repair household supplies.
- Helpers to collect surplus or perishable crops for school lunches and community kitchens.
- Workers to store and preserve vegetables and fruits for school and community use.

Montana: Young Grange members formed shopping committees to make purchases in nearby country towns for their neighbors. They assemble information as to what days certain farmers go to town with their trucks and what days other people go with their cars. They make lists of those who wish to go on these days and do the telephoning.

Seattle, Wash.: A program to inform housewives of the proper way to prepare fats for collection was organized by the Aleph Zadik Aleph.

Shaker Heights, Ohio: To help in the sugar rationing registration some 300 high-school students gave their services. More than 500 high-school pupils volunteered to act as registrars to assist the school at the time of selective service registration.

Bellingham, Wash.: The Camp-Fire Girls decided to show how well they could get along without sugar and staged a sugarless candy and cooky sale. The customers liked it so much that they requested copies of the recipes.

Portland, Oreg.: The Girl Reserves conduct a "Fix-it" shop in which a service is performed under the leadership of the good will industries for fixing household equipment.

Quincy, Mass.: Use of service kits assembled by students at the high school for re-washing faucets in their own homes and in homes of friends has helped to conserve Quincy's water supply.

Ellerbe, N. C.: Students of agriculture in the high school arranged for the use of a town block as a community cooperative market, where farmers regularly brought small surpluses which ordinarily would have been discarded for lack of a market. Assembled, the partial loads filled hundreds of trucks weekly.

Alabama: Students in many schools each fall collect all broken farm implements and make the necessary repairs at school, using scrap materials collected at home.

San Diego, Calif.: From date which they gathered from hospitals, clinics, and public markets, high-school students prepared a monthly grocery list of the least expensive foods, showing their caloric value, amount needed per person, costs and so forth for various-sized families. They prepared sample weekly menus and their information was published and distributed by the Community Chest.

Mooringsport, La.: Members of the 4-H Club visited homes, and from their experience in meat canning taught interested adults how to can meat and how to save money by doing so.

Modesto, Calif.: Boys in the high school took care of the cars of WPA workers, charging only for materials used. Later they worked on all community cars.

Gastonia, N. C.: Daily schedule to help file ration cards in the county defense office was set up by and for the members of the Junior Red Cross.

Norris, Tenn.: The high-school students manage a service enterprise known as the "Norris Schcol Cooperative." Most of the students have some share of responsibility. The cooperative includes a cafeteria, a store, a bank, a lost and found bureau, and an egg and produce unit.

New York City: Students in one grade of a private school conduct a rubber exchange. Outgrown sneakers and rubbers are brought in and turned over to other students who can wear them.

Richmond, Va.: In a campaign by the Office of Price Administration to control wartime prices by volunteer means, the Boy Scouts and Girl Scouts supplied the milk cards to shoppers at the grocery stores.

New York City: Members of the YMHA have set up a consumer information service which makes available for housewives and others information about food purchases and market conditions.

Corning-Painted Post, N. Y.: 28 Girls Scouts have helped at the rationing board under the civilian defense authorities. They also assisted the American Legion Auxiliary in the collection of old phonograph records.

Melrose, Mass.: Working with the Parent Teacher Association, the Girl Scouts conduct a rubber-shoe store where they bring old rubbers, mend and assemble them in pairs, and sell them.

Bronx, N. Y.: A young people's society of a local church observed "National Sharecropper's Week" by collecting clothing and other needed materials for sharecroppers.

Nantucket, Mass.: Young people of one of the churches collected household fats for soap-making. They made 500 cakes of soap which have been sent to Great Britain:

Berkeley, Calif.: The Scouts distributed 60,000 copies of "What You Should Know About Price Control," a pamphlet from the Office of Price Administration, 51,000 copies of "Blackout & Air Raid Instructions," 30,000 copies "What You Should Know About Defense Organization," and 44,000 dodgers "Register for Civilian Defense" for the Office of Civilian Defense.

Twin Harbors, Mich.: Scouts and Cubs delivered 12,900 OPA leaflets in 6 municipal centers and all rural districts, also folded leaflets for rural mail carriers.

Lawrence, Mass.: The Scouts distributed 120,000 U. S. price control pamphlets to the homes.

Albert Lea, Minn.: The Scouts distributed "Save Your Grease" leaflets and 28,000 price control leaflets.

La Grange, Ill.: The Scouts distributed over 41,000 copies "What You Should Know About Price Control," 100,000 copies "Alert" every three weeks, 20,000 copies "Consumer's Pledge Against Waste," and 983 posters "Buy War Defense Bonds."



4-H Club Boys Salvage Lumber for War Housing

HOUSING PROGRAMS

- Canvassers for housing vacancies.
- Clerks to file vacancies in Home Registration Offices.
- Recreational assistants in public housing projects and migratory labor camps.
- Collectors of fuel wood for needy families.
- Organizers for a year-round clean-up campaign in the neighborhood.

Bristol, N. H.: Volunteer workers in a "Work Camp" completely renovated an old farmhouse, making it more livable and useful.

Columbus, Ohio: The North Hi-Y Club has produced a 400-foot, 16-millimeter film which tells the story of inadequate housing in that city. The scenario and picture were written and produced by the club members and shown to many community groups interested in housing.

Quincy, Mass.: Boy Scouts were able to furnish the local Homes Registration Offices of the National Housing Agency 1,200 dwelling unit registrations and over 2,000 rooms which neither the Office of Real Estate offices, nor other sources knew of.

Portland, Maine: In a canvass covering a radius of 25 miles, the Boy Scouts disclosed 1,100 new registrations of which about 200 were dwelling units, and the remainder rooms, to the local registration office of the National Housing Agency.

Hamtramck, Mich.: High-school students in their "Clean-up and Paint-up" campaign asked on the cleanliness of basements, attics, porches, furnaces and garages of the community. They conducted a sanitation survey, checking ventilation, waste disposal, etc., with the result that much refurnishing and attendance to community housekeeping resulted. The students themselves cleaned up many of the city's alleys.

Sault Ste. Marie, Mich.: The Camp-Fire Girls undertook a campaign to investigate and publicize the garbage collection system of the city and had a part in setting up a new and improved plan.

Greenville, S. C.: Advanced students in the high school assisted voluntarily contacting local residents to help them with plans for home improvement.

Quincy, Ill.: In cooperating with the Quincy housing authorities, high-school students conducted a survey, calling in pairs on residents and entering on their check lists the important information. State housing authorities who had planned such a survey found the student-gathered information so complete that theirs was unnecessary.

Los Angeles, Calif.: In one housing project a boys' messenger corps is organized to help with black-out rules and to carry emergency messages to every family in the project.

Chickasha, Okla.: In response to a request by the mayor, Girl Scouts made a complete housing survey of available apartments and rooms in the city in the short space of 4 days.

Pomona, Calif.: When city money was not available for the project, the young people of one of the churches assisted with a housing survey preliminary to the starting of a Federal Housing Program for the city.



Scout Group Trailer Project Makes Use of Old Lumber

RECREATION AND YOUTH GROUP SERVICES

- Recreational, discussion, and project leaders in settlement houses, libraries, community centers, and youth organizations.
- Instructors in simple crafts for younger boys and girls.
- Junior supervisors for playgrounds, game rooms, and gyms.
- Workers on playground facilities in war industry areas.
- Actors and performers for the USO and local entertainment bureau.
- Volunteers to prepare games and sewing kits, or to do mending for men in the armed services.
- Correspondents to write regularly to school alumni in the armed services.

Rockford, Ill.: The high-school students have been at work on a project which has already produced for the soldiers at Camp Grant 50 hot water bag covers, 350 coat hangers, 130 splints, 120 cross word puzzle books, and 35 puzzles.

Saranac Lake, N. Y.: 2 tennis courts for public recreation have been constructed by boys of the Hi-Y.

Cincinnati, Ohio: The Hi-Y has assumed responsibility for the leadership of several under-privileged boy groups.

Indianapolis, Ind.: A committee of 90 members of one of the high schools finance and compose news letters to boys in the armed services from their school. They also sponsor radio broadcasts which give excerpts from servicemen's letters.

East Orange, N. J.: Each homeroom boy in the Junior High School has adopted a man in the armed forces to write to, send the school newspaper, cartoon scrapbooks, and other tokens of remembrance.

Everett, Wash.: Camp Fire Girls assisted the National Music Federation in a project to gather victrola records and sheet music for the fighting units. From their own group they produced one piano, two phonographs, and 300 records.

Chattanooga, Tenn.: Girls in a local private school have conducted a ~~successful campaign~~ to collect books, magazines, and phonograph records for the various military camps near Chattanooga.

Denver, Colo.: High-school students surveyed the recreational facilities of their district and made spot maps showing where new facilities were needed.

Deatsville, Ala.: High-school students conduct a game library and have charge of a bowling alley open to the public. They have also built an archery range and a barbecue pit for community use.

Denver, Colo.: Camp-Fire Girls have assembled emergency recreation kits to provide entertainment for all types and ages of people who might be occupying shelter or blackout room.

Portland, Oreg.: Junior Red Cross members made a house-to-house canvass for raffia, tooling leather, and wood for carving with which to make recreational articles requested by Commanding Officers of nearby military station hospitals.

Cleveland, Ohio: Groups of high-school seniors have been assisting in program activities of the West Side Community House.

Alhambra, Calif.: The Office of Civilian Defense asked the Girl Scouts to find out what was being done in their community by youth organizations. Data gathered was classified and filed by Senior Scouts and used in formulating defense plans for the area.

Austin, Tex.: The city recreation group and the USO asked the Girl Scouts to set up recreation for soldiers at the nearby camp. The Scouts have cooperated by opening their Scout house and asking their families to entertain the soldiers in their homes.

Cleveland Heights, Ohio: When a survey showed that recreational facilities for young people were meager, church young people with the cooperation of the Board of Education planned and directed a recreational program attended by 100 youth each night.

Philadelphia, Pa.: The Christian Endeavor Union in 9 months visited 110 ships, placing at least one magazine in the hands of each of 4,350 crew members, and distributed comfort bags with personal equipment to 750 seamen.

Tampa, Fla.: The young people of a local church group have assisted in the remodelling and furnishing of a brick building provided by their church as a recreation center for men in service.

Richmond, Va.: Under the sponsorship of Christian Endeavor groups in the city, open house for men in uniform is held each Saturday night at the YMCA, with a different society taking charge each week.

West Haven, Conn.: After being of service as messengers to soldiers stationed at a nearby armory, Troop 5 was instrumental in having the local radio station broadcast an appeal to householders to invite 50 of the soldiers home for dinner. More than 50 responded, and the Troop is now compiling a list of all families willing to dine soldiers, to be prepared for the next contingent.

Berkeley, Calif.: The Scouts collected 15 tons of furniture for U. S. Army Camps.

San Francisco, Calif.: The Scouts collect and sort weekly an average of 2 tons of magazines to be shipped to military outposts overseas.

Ogden, Utah: The Scouts gathered 1,560 Victory Books for distribution to the USO.



Hi-Y Work Campers Pick and Sort the Peach Crop

SCHOOL AND EDUCATION PROGRAMS

- Aides for the Victory Corps Director, guidance counsellors, placement bureau, public nurse.
- Clerks to help keep school and alumni records.
- Switchboard operators in the school.
- Helpers to lead children's clubs and events.
- Assistants in nursery schools and school lunch-rooms.
- Maintenance crews for school upkeep.
- Repair groups to care for school furniture and equipment.
- Volunteers to help build new facilities required by the Victory Corps program.
- Young people equipped to teach the foreign-born.

Flint, Mich.: The Girl Scouts have been assisting teachers with the younger children in air-raid drills for which they have received special training.

Pottstown, Pa.: The boys of the Hill School have taken over responsibility for much of the school maintenance and are proving to be successful with it as is evidenced by reduced breakage in the dining room.

Marion, Va.: Some 30 high-school boys volunteered to serve as messengers. In addition to service to the school, they serve as messengers in emergency situations when communication lines are disrupted.

East Greenville, Pa.: The schoolboy patrol takes responsibility for directing traffic, helping to conduct fire drills, supervising the behavior of fellow students on playgrounds, and has presented motion pictures on safety.

Dodge, Ga.: The Future Farmers of America have contributed a defense shop 20' x 30' with material furnished by the school boards for use in maintenance of the school.

Big Pine, Calif.: Scrap metal was collected by the high-school boys for use in the machine shop courses under the guidance of the shop instructor. The installation and wiring for new machines were done by the pupils, and they have assisted in repairing and maintaining much of the school equipment.

Westerly, R. I.: A group of girls in the high school who have had some elementary nursing instruction is staffing an emergency first-aid room for the school. Another group of girls serves meals to pupils who might find it necessary to remain at school for several hours.

Athens, Ga.: Because the old sewage system of the school was dangerous to health, the students, under direction of a sanitary engineer, bought materials, and constructed a new sewage system.

Selma, Calif.: With the assistance of their instructor, the boys of the high school constructed a needed school bus.

Bruno, Ark.: School boys cut and hauled logs to the saw mill and with hardware and roofing materials furnished by the Board of Education built a shop for their school.

Ann Arbor, Mich.: Members of the library club are on duty both during the school day and after school hours. If the Librarian is absent these students carry on the library services under the direction of their club chairman.

Hubertville, Ala.: When the school building burned and a new one was being built, students of the high school planned for and did all of the work necessary to build and install showers and laboratories.

Cleveland, Ohio: Commercial students in a Cleveland high school operate a production room where any teachers in the school may arrange to have typing done, stencils cut and run, and comparable services performed. In this school also students are in charge of the study halls.

Eugene, Oreg.: High-school students operate an Art Service Bureau for carrying out requests from any group in the school for posters, decorations, stage sets, and the like.

Benham, Ky.: When the Industrial Arts Department was given new quarters, students took on the job of reconditioning the old wooden building which was to house them. In addition to making many repairs, they constructed work benches, tool cabinets, and machine stands.

Newton, Mass.: Members of the Leaders Corps act as assistant directors of class activities, take care of locker rooms and showers, officiate at intramural contests, serve as messengers of intramural leagues, and look after equipment.

Ypsilanti, Mich.: Pupils take complete charge of checking all details relating to arrival of students by bus. They report not only attendance, but also weather conditions, mechanical difficulties, if any, and general conduct of the students.

Ithaca, N. Y.: High-school students operate a Board of Inspection which helps to keep the school building and grounds clean, and checks on places in the building needing special attention or repair.

Moultrie, Ga.: Members of the Mechanics Club have charge of the visual education equipment of the school which involves operating and keeping up the equipment and maintaining the library of materials.



Library Service Volunteers

LIBRARY SERVICES

- Assistants and book repair crews in school libraries.
- Organizers in Victory Book drives.
- Collectors of magazines and phonograph records for chaplains, seamen, and the USO.
- Librarians and readers for shut-ins.
- Library assistants in public libraries and other centers.

Springfield, Ill.: More than 32,000 books were collected for the Victory Book campaign by the Boy Scouts.

Boston, Mass.: The Aleph Zadik Aleph and B'nai B'rith girls collected 30,000 books which they turned over to the Boston Public Library.

Des Plaines, Ill.: High-school students collected a thousand books which were contributed to the library.

Houston, Tex.: Every Sunday afternoon a committee of Aleph Zadik Aleph members canvass from house to house for usable books for soldiers.

Mt. Vernon, N. Y.: Mimeographed publications for shut-ins were assembled and distributed by the Girl Scouts.

Detroit, Mich.: Girl Reserves have established a library in their school. The Parent-Teachers Association cooperated in the collection and distribution of books. Girls were librarians as well as collectors and buyers of books.

Harlan, Ky.: Students of a settlement school conduct a pack horse library service whereby they carry books to remote homes and small outlying sections.

Providence, R. I.: The Camp Fire Girls have established a library for defense work families, strangers in the community, and others, made up of books which they themselves have collected. They do all of the cataloging and arranging of the books and act as librarians.

St. Petersburg, Fla.: The local Defense Council, requesting the Girl Reserves to sponsor a Victory Book drive campaign, collected more than 600 books.

Ridgewood, N. J.: Girl Scout Mariners have collected more than 3,000 books and magazines for the Merchant Marine Library.

Cheyenne, Wyo.: Library Exchange services for the city hospital are conducted by Girl Scouts.

Springfield, Ill.: The Abraham Lincoln Council accounted for 55,000 books, netting more than half in a single afternoon. One Sunday morning all Scouts attended their church services in uniform and many pastors spoke in behalf of the house-to-house collection slated for after dinner. At one o'clock approximately 300 Scouters and 1,000 Scouts gathered at 74 stations, where they boarded trucks donated by business houses. By 5 o'clock the last truck checked in and the grand total collected in the 4 hours was 32,000 volumes.

San Francisco, Calif.: Packs and Troops collected 15,000 books which they turned in to district libraries.



A Future Farmers Wartime Discussion Group

INFORMATION SERVICES

- V-Speakers in the schools and community. -
- Discussion group leaders on war subjects.
- Informed volunteers to combat dangerous rumors.
- Assistants at War Information Centers.
- Artists for exhibits and posters.

Oswego, N. Y.: The Girl Scouts organized to distribute to the entire city information from the local defense council.

Faribault, Minn.: At the State Fair, 4-H Club members dramatized scenes demonstrating good rules of citizenship in the home, democracy in local clubs, how to present such information to community clubs, and how members help build democracy.

Allentown, Pa.: A campaign for combatting rumors in the local defense area has been put on by the Hi-Y boys.

Hobbs, N. Mex.: High-school students have conducted demonstrations for the community on methods of extinguishing incendiary bombs.

Portland, Maine: A home safety program was initiated by Camp Fire Girls. It involved the assembling of safety information in Portland and communicating by speakers to such organizations as the service clubs.

Hammond, Ind.: High-school students operate a news bureau which collects and prepares news for the local defense council which, in turn, sends the copy to the newspapers.

Williamstown, N. Y.: For Parents' Night, the high-school students wrote and presented a play depicting the growth of democracy.

New York City: One high school has a student organization known as the War Information Committee which stages forums and discussions. They also train speakers available to community groups on such topics as "The United Nations," "The Home Front," and "Rationing." The Committee also studies measures for work with fellow students.

New York Mills, Minn.: High-school students have conducted open forums to present and interpret national problems to the public.

Atchison, Kans.: A downtown auditorium was secured by high-school students for holding 6 public forums on "What the War Means to Us."

Fort White, Fla.: Because the community had no newspaper, students at the high school publish and distribute to the townspeople a weekly duplicated news sheet containing not only school news but also personal items and advertisements.

Houston, Tex.: Girl Scouts have distributed handbills to housewives in the city, giving information as to the types of articles which are of use in the scrap drive, and the way in which the materials can be turned in.

Fort Smith, Ark.: At a request from the Navy, members of the Boys' Club helped in distributing and mailing literature.

San Francisco, Calif.: The Scouts assisted in poster distribution for the Army and Navy Baseball Benefit, Navy Reserve Recruiting, Navy Yard Labor Recruiting, and Stenographer Help Recruiting.

Albert Lea, Minn.: The Scouts distributed salvage posters and Community Chest posters and literature.

Los Angeles, Calif.: The Scouts distributed 827,350 leaflets, pamphlets, placards, posters, etc. for the Office of Price Administration, Office of Civilian Defense, Treasury Department, Office of Production Management, Fire Department of Los Angeles, Community Chest, Office of War Information, T. B. Society of Los Angeles, Red Cross, American Legion, State Department, Navy Relief Society, Forestry Department, and Department of Justice. They also collected 5,000 phonograph records for the American Legion.



Boys' Club Trainees for Neighborhood and Block Services

NEIGHBORHOOD OR BLOCK LEADERS

- Trained young people to work with block or neighborhood leaders.
- Volunteers to keep neighbors, particularly young people, informed about the war.
- Agents to secure neighborhood participation in special war programs and services.
- Youth leaders working to maintain unity and to provide inter-racial and inter-religious understanding.

North Lawndale, Ill.: Boys and girls in one block of this Chicago suburb organized themselves into a Junior Victory Army under the leadership of their deputy block captain. They have taken over the ordinary work in the block salvage, war bonds, and other programs. This block leads the community in bond sales.

New Hampshire: Hi-Y Minute Men were organized to be of service wherever needed. Some of their activities: plane spotters, fire squads, messengers, raising funds for Red Cross and other relief, salvage, collecting clothes for English Children.

Portland, Oreg.: Carrying on a tradition of many years' standing, a community interfaith Thanksgiving service was sponsored by Hi-Y boys.

Honolulu, T. H.: In one block, the K. D. G. Club (secret name) has organized to distribute news, pick up papers, carry messages, and generally act as a service corps.

Long Branch, N. J.: In one neighborhood, the Boy Scouts have organized their own group to collect aluminum and wastepaper, and to escort smaller children in case of air raid. They have also carried the consumer's pledge to the families in their neighborhood.

Cleveland, Ohio: One Boys' Patrol acts as a pick-up squad for the neighborhood. It is also responsible for protecting the grass, cleaning the grounds, and keeping garbage cans in order.

Norfolk, Va.: The youth in one neighborhood have organized a safety program in addition to helping to enforce safety rules in the neighborhood.

Corpus Christi, Tex.: Boys in one neighborhood comprising a housing project have raised money by taking care of grass for busy tenants.

Chicago, Ill.: Members of one Girl Scout troop are known as "Minute Girls" in their neighborhood. The troop has offered its services to the block organizers, and Scouts have been acting as messengers to notify people of the special block meetings.

Baltimore, Md.: Sponsored by a local church group of young people, an international fellowship is held regularly where youth of different races mingle in religious and social gatherings.



Junior Red Cross Workers Pack Christmas Boxes for Shipment Overseas

OTHER WARTIME SERVICES

- Officers in School Safety Patrols.
- Aides for fire departments in eliminating fire hazards, and for the Forestry Service in Fire Prevention.
- Assistants in campaigns against plant diseases and in insect control.
- Aides to combat soil erosion by reforestation and other means.
- Young farmers in home, school, and community Victory Gardens.

- Campaigners for the War Chest, Red Cross, special war relief needs.
- Volunteers to help sort and pack supplies at war relief agencies.

Downey, Calif.: High-school students made fag bags for smokers to prevent forest fires.

Washington, D. C.: Girl Scouts have assisted the Forestry Department in finding and destroying diseased shrubs and in the control of pine blister rust.

Cambridge, Mass.: Members of the Girl Scouts organization, in their summer camp which is in New Hampshire, have cooperated with the New Hampshire Forestry Department in the control of the gypsy moth.

Reading, Pa.: In order to prevent erosion, Camp-Fire Girls planted vines along a mountain side.

Salem, Oreg.: An organization of youth of high-school age known as the "Green Guards" acted as forest guides for the dry summer season, and by it used their training on how to care for a camp-fire and what to do in case of fire. They also were on the alert for reporting action of possible saboteurs.

Colorado Springs, Colo.: More than 100 Boy Scouts transplanted 1 million fir, spruce and pine seedlings in the Pike National Forest.

San Diego, Calif.: Camp Fire Girls have been collecting flour, sugar, and salt sacks for the forestry department, cutting and hemming them to uniform-sized bags, dyeing them bright red and attaching labels reminding picnickers of fire hazards. Cigarettes are kept in these bags while hikers are in the forests.

Holland, Mich.: With the advice of experts, high-school students have planted more than 5,000 trees on a 40-acre tract of land. There are student committees on common insect pests, enemies of birds, bird protection, and similar enterprises.

Fayette County, Ala.: Scores of road signs "Help Prevent Forest Fires" have been furnished highway authorities by 4-H Club group members.

Vermont: The 4-H Club at a summer camp in Vermont put on a refugee dinner served by two Chinese children. Other refugees were present and told of their experiences.

Knoxville, Tenn.: Girl Reserves have gathered together a large number of dresses, skirts, sweaters, and shoes as a part of the Nation-wide Girl Reserve "Share-Your-Clothes" project. These garments have been sent to the American Friends' Service Committee for distribution to war victims.

Minneapolis, Minn.: A Thanksgiving dance, conducted by the Girl Reserves, netted \$212 for the war refugees.

Summit, N. J.: Girl Reserves serve in a refugee relief workroom where they do a great variety of things—from putting in shoelaces to stuffing toys, sewing, and the like.

Baltimore, Md.: Girl Reserves have participated in benefits to help the British War Relief Societies and have aided Greek and Red Cross charities. One group has taken over the support of a Chinese family, while another provides funds, food, and clothing for other families.

Palestine, Ill.: An employment bureau for farm help has been conducted by high-school students during the spring, summer, and fall.

Schenectady, N. Y.: Upper classmen of the high school make periodical job opportunity surveys, securing facts about employment and polling employers' opinions about the type of school preparation most needed.

Springfield, Mass.: Over 200 bushels of herbs have been harvested by the Girl Scouts, much of which was sent to England for medicinal purposes.

Altoona, Pa.: Boys and girls of the high school conducted Victory Gardens during the summer.

Marion, Va.: Some 346 Victory Gardens were operated by the high-school students during the summer of 1942.

Walsh County, N. Dak.: Youthful farmers mixed 350 bushels of gopher exterminator and gave demonstrations to the community on gopher control.

Morringsport, La.: The 4-H Club conducted a rat-killing campaign, exterminating 500 rats in 2 years, and saving the community an estimated \$1,000.

Florence, Ala.: High-school students collected mosquito specimens from nearby breeding places, destroying 15 breeding places, and had blood specimens resulting in uncovering cases of malaria needing treatment.

Jayuya, Puerto Rico: High-school girls in cooperation with the Health Department have visited homes getting samples of blood in an effort to check anemia caused by hookworms. They also made posters showing needed sanitary precautions and improvements and placed these in homes.

Lincoln, Nebr.: The Junior Citizens League undertook a city-wide campaign after study on abating smoke nuisances to improve the smoke situation in the community.

Des Plaines, Ill.: The students of the high school earned the money needed for wood for their model plane program by conducting a tag day.

Sacramento, Calif.: Camp Fire Girls have built a school park from plans drawn up by the Park Department.

Chicago, Ill.: A chapter of Aleph Zadik Aleph was asked by the local defense council in a metropolitan area community to conduct a census of changes in the community. Within 3 days the name, address, telephone number, and type of business of every establishment was furnished.

Fort Edward, N. Y.: At the request of the local defense council, the Girl Scouts made a complete census of the town and furnished an inventory of hospital equipment.

Fairhaven, Mass.: Children here are organized into Junior Employment Associations performing such community tasks as snow clearance, taking a tree census, filling washouts in roads, cutting down brush, destroying moth eggs, cocoons, and ragweed.

Crossville, Tenn.: High-school students at Cumberland Homesteads did all the work except quarrying the stone to build a much-needed community fire house.

New York City: High-school students, using weekends, have participated in the beginning of a successful cooperative effort of a rural community to attack its problems of depleted soil, neglected woodland, and undeveloped water power.

Gloucester, Mass.: Quantities of mimeograph and clerical work were done by the high-school students for the Red Cross and the local defense council.

Medford, Mass.: Girl Scouts were on duty to assist the registration at the Civilian Defense Volunteer Office.

Coral Gables, Fla.: The Girl Scouts organized to assist in the local defense council plans in case of evacuation.

Newport, R. I.: A bicycle corps to survey streets and bridges in case of evacuation was organized by the Girl Scouts. They also made maps of the city for this purpose.

Fayette, Ala.: Boys of the high school created ponds, fertilized the water causing algae to grow, upon which fish were fed with a result of an increase of 450 pounds of fish per acre. Mosquito control is part of this project.

Industria, U. S. A.: In this city, which must be nameless, Camp Fire Girls cooperated in a war camouflage project. They prepared and planted 6,000 tree cuttings which will later be used for camouflage purposes.

Hyannis, Mass.: The commanding officer of the Army's 1st Service Command gave the Cape Cod Boy Scouts a confidential mission to perform which the press was asked not to describe. He commended them also for their work during a disaster at Provincetown and for their messenger work at Report Centers.

Zion, Ill.: When floods contaminated the city's water supply, the Boy Scouts helped to prevent epidemics by visiting 1,500 homes and warning householders.

Nauvoo, Ala.: After observation of soil erosion of burned-over land, students of the high school organized a fire patrol. Skill developed in backfiring, proper use of implements, and in building fire lines has now made the community almost free from forest fires.

North Carolina: High-school girls 16-18 have been commended by the Department of Motor Vehicles for their efficient and safe operation of school busses.

Schenectady, N. Y.: An Inter-racial Club of girls and boys of Negro, Japanese, Chinese, Italian, Spanish, and white American parentage have been working together with minority problems. Sample activities—studying local housing conditions, inequalities, and health work and recreation.

San Pedro, Calif.: Youth at a Settlement House have been assisting in the Army camouflage activities by slipping, growing, and cultivating plants and shrubs.

Asbury Park, N. J.: An organization known as the Junior Police has played a part in the reduction of neighborhood mischief by 75 percent.

West Campton, N. H.: Because of the few telephones in this community, the members of the Juvenile Grange have organized complete messenger service to the Red Cross Canteen Corps and to the chief air-raid warden.

Honolulu, T. H.: Since December 7, 1941, Girl Scouts have assisted in many ways by doing such things as scrubbing floors to get rooms in order for evacuees and first-aid stations, helping in cafeterias, caring for children, collecting bottles for blood bank, and doing other emergency tasks.

Palacios, Tex.: For the benefit both of the town and the soldiers who live in a nearby Army camp, Girl Scouts made street signs which soldiers lettered and Boy Scouts installed.

Utah: Forest Scout Watchmen in cooperation with the United States Forest Service are alert to prevent forest and field fires, to report the presence of suspicious strangers to ranger, sheriff, Scoutmaster or other official.

Chicago, Ill.: The Cook County Highway Department was faced with the problem of accurately recording the origin and destination of vehicles within an area approximately 50 miles north, west, and south of the central business district of Chicago and east of Gary, Ind. Out of this survey the County must design and locate a system of express highways in the County areas. Reliable checkers and recorders were needed to do the job so highway officials came to the Boy Scouts. The boys worked in 3-hour shifts and checked 2 million vehicles.

San Francisco, Calif.: The Scouts assisted the Office of Civilian Defense with evacuation maps and fingerprinting. They also served as orderlies in all the major patriotic demonstrations and pageants since the outbreak of the war—senior scouts, sea scouts, and cubs included.

Ogden, Utah: 110 Scouts planted trees under the direction of the U. S. Forest Service.

Rochester, N. Y.: The Scouts mobilized and searched and located a missing child after 12 hours of search. The Sea Scouts served as messengers, boatmen for the Brighton Town Officials, and evacuated families during the recent spring floods.

Beyond the services outlined, there may be special regional problems calling for concerted volunteer effort. In many areas, the High-School Victory Corps can turn the tide of battle against such public enemies as mosquitoes, hook-worm, epidemics, waves of juvenile delinquency, and the aftermaths of disaster. Immediate acute community need presents a special opportunity of bringing out through the Victory Corps the resourcefulness, adaptability, and energies of American Youth.

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MOTION PICTURES

The Arm Behind the Army. An official War Department film which shows that the success of the Army on the firing line depends upon the success of labor and industry on the production line. (Office of War Information, 16mm, sound, 10 mins.)

Democracy in Action. Shows the vast agricultural resources of this country and how democratic procedures followed by farmers are helping produce more of the foods needed in the war program. (Office of War Information, 16 mm, sound, 11 mins.)

Farm Front. A documentary picture telling the story of the American farmer in national defense. It points out the relation of his work to the American ideal of the United States as a land of opportunity for all, and shows how he is working with industry to safeguard the American Freedoms. (U. S. Department of Agriculture, 16 mm, sound, 11 mins.)

Home on the Range. This film is an eloquent tribute to the men of the western ranges. It shows the contribution of the western range country to the war effort—wool and mutton, beef and leather. (Office of War Information, 16 mm, sound, 11 mins.)

Scrap for Victory. A description of the way in which each member of each family can contribute to the salvage drive (Bran-

don and the New York Civilian Defense Volunteer Office, 16 mm, sound, 10 mins. \$1.50)

For Health and Happiness. Discusses the vital bearing good nutrition has on human health and happiness. Shows scenes of well-nourished children from infancy to youth, and the food groups that contribute to all-round development. (U. S. Department of Agriculture, 16 mm, sound, 9 mins.)

Salute to Farmers. This film shows all branches of agriculture with emphasis on intensification of production for food. (British Information Services, 30 Rockefeller Plaza, New York, N. Y., 16 mm, sound, 15 mins. 75 cents)

Dinner at School. In wartime, dinners at school for children are more than ever necessary. The film describes how this service has increased in England with half a million children having meals at school, and 200 school canteens opening each month. (British Information Services, 30 Rockefeller Plaza, New York, N. Y., 16 mm, sound, 9 mins. 50 cents)

Five and Under. Discusses the problems of caring for small children in nursery schools, while mothers are working in war factories. (British Information Services, 30 Rockefeller Plaza, New York, N. Y., 16 mm, sound, 16 mins. 75 cents)

APPENDIX

(Joint Statement, Office of Civilian Defense and U. S. Office of Education)

The purpose of this statement is to describe specifically the relation of the High-School Victory Corps, sponsored by the U. S. Office of Education, to the program of volunteer activities carried on under the Office of Civilian Defense. It applies with equal force to all students who engage in community war activities.

The U. S. Office of Education realizes the all-encompassing nature of the war effort and proposes to enlist students in the Nation's High Schools to do their part for victory. The Office of Education has urged the organization of a High-School Victory Corps and has issued a plan of organization. The High-School Victory Corps offers the basic plan or organization for students in high schools for the duration of the war. Its primary purpose is to train high-school students for early induction into war services with the secondary communities. The Office of Education is cooperating in a number of wartime programs. Among these is the "Schools at War" program with the Treasury Department. This program is concerned primarily with the sale of war stamps and bonds. Another is the program of the War Production Board which is intended to direct the efforts of school children in scrap collection drives. Both should be included within the over-all organization of the High-School Victory Corps as far as possible.

The Office of Civilian Defense has the responsibility by Executive Order for mobilizing a maximum civilian effort in the prosecution of the war and for reviewing all programs of Federal Agencies involving the use of volunteer services to assure uniformity and balance in their application. The coordination and general promotion of these wartime programs requiring volunteer civilian participation are specific responsibilities of the State and local defense councils.

Thus, proper relationship between the Victory Corps in the High Schools and the

local defense councils is of vital importance at the point of participation in community war activities. Defense councils and the school authorities should cooperate in the following ways in development of the Victory Corps:

1. The school authorities in charge of the Victory Corps should develop their plans regarding community activities in frequent consultation with the proper committees or representatives of the defense council so that harmonious planning and publicity will make the Victory Corps effective with respect to these activities.
2. The High-School Victory Corps should give special attention to informing young people and their parents about the volunteer activities of the local defense councils through assemblies, clubs, etc. Every student should be an informed worker for greater civilian participation in the community's war effort.
3. Defense councils should effect a close working relationship between school authorities in charge of the Victory Corps and leaders of youth-serving organizations as one major means of relating young people to community services sponsored by the defense council and training future leaders. Participation in such community programs can be facilitated through teamwork.
4. The school authorities should call upon civilian defense volunteer offices or the defense councils for qualified volunteer leaders when needed for special courses or group work.
5. The defense councils should help the school authorities in relating High-School students to others engaged in war activities such as war stamp sales campaigns, scrap collection, public speaking, entertaining soldiers, etc.
6. Superintendents of schools or their designated representatives should,

where possible, be included as members of the State and local councils. In addition, active leaders of the school program (in salvage, stamp sales, farm service, etc.), should be members of proper action committees established by the defense councils and through such committees the High-School youth

should be brought into active community war service.

JOHN W. STUDEBAKER, Commissioner,
U. S. Office of Education.

JAMES M. LANDIS, Director,
Office of Civilian Defense.

October 3, 1942.



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SERVICE

in the

ARMED FORCES



Federal Security Agency
U. S. OFFICE OF EDUCATION

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[Franklin R. Brown]

SERVICE in the **ARMED FORCES**

VICTORY CORPS Series, Pamphlet No. 6

Supplementing Guidance Manual for the High-School Victory Corps,

Victory Corps Series, Pamphlet No. 4



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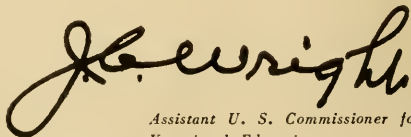
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FOREWORD

ONE HUNDRED THOUSAND young men become 18 years of age each month. Under the Selective Training and Service Act of 1940, as amended, “. . . every male citizen of the United States, who is between the ages of 18 and 45 at the time fixed for his registration, shall be liable for training and service in the land or naval forces of the United States . . .” To these young men of 18 and to that reservoir of 17-year-olds, this pamphlet is offered.

In preparing *SERVICE IN THE ARMED FORCES* the author visited induction stations, Army reception centers, Army replacement training centers, Army Air Force installations, recruit training stations of the Navy, Coast Guard, and Maritime Service, Navy and Coast Guard service schools, Navy and Coast Guard preparatory schools for enlisted men studying for entrance to the Navy and Coast Guard Academies, and the Coast Guard and Merchant Marine Academies. Hundreds of officers and thousands of enlisted men assisted in the compilation of questions and answers. Special assistance was given by Maj. Harold W. Kent, War Department, and Lt. Franklin R. Fielding, Navy Department.

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SERVICE IN THE ARMED FORCES

Part 1. GENERAL INFORMATION

Entering the Armed Services Other Than Through Selective Service

1. How can I get into one of the various services other than through Selective Service?

You may enlist in the Navy, Coast Guard, or Marine Corps at the age of 17 if you are able to meet the enlistment requirements. For specific information see Parts 4, 5, and 6 of this pamphlet.

When you are 17 it will also be possible for you to enlist in various enlisted reserve programs, such as Enlisted Reserve Corps of the Army—Unassigned; Air Corps Enlisted Reserve; and Apprentice Seamen, V-5. For specific information relative to the various reserve programs see Parts 2, 3, and 4 of this pamphlet.

When you are 17 and in the final semester of the senior class of a recognized high school or preparatory school you may enlist with parental consent as an Apprentice Seaman, Class V-6, U. S. Naval Reserve, if physically and otherwise qualified. You will be placed on inactive duty at your request until the end of that semester or until you cease to pursue such course, whichever is the earlier.

Selective Service Information

2. Who is liable to the selective training and service act of 1940, as amended?

With few exceptions, every male citizen of the United States and every other male per-

son residing in the United States who is between the ages of 18 and 45 at the time fixed for registration shall be liable for training and service in the land or naval forces of the United States. At the present time, however, neither the Army nor the Navy is accepting men over 38 as a general rule. There are instances, though, when men over 38 are accepted.

3. Who is in charge of the Selective Service system in my State?

The State Director of Selective Service.

4. Who is in charge of the Selective Service system in my locality?

The Selective Service Local Board.

5. From whom may I obtain information as to the draft board which has jurisdiction over me?

From any local board office. The address of a particular board in a community may be obtained from the post office or police department.

6. When must I register?

The law requires you to register on the 18th anniversary of the day of your birth unless such day is Sunday or a legal holiday in which case you are required to register on the following day.

7. Do I register by mail or must I appear personally?

You must appear in person.

8. What do I fill out when I register? What information do I give?

A local board clerk will fill out your registration card and registration certificate, both of which you will be required to sign. You will be required to give your name, address, mailing address if other than place of residence, telephone, age in years and date of birth, place of birth, name and address of person who will always know the registrant's whereabouts, employer's name and address, and the place of his employment or business. There are nine questions in all to be answered by the registrant.

9. What is the occupational questionnaire and do high-school pupils fill it out?

The Occupational Questionnaire (DDS Form 311) is primarily used for the purpose of determining the registrant's occupation, vocations, and avocations. It is not the same as the Selective Service Questionnaire (Form 40) used for classification purposes. High-school pupils also fill out DDS Form 311.

10. When do I receive my classification?

This would depend on conditions in your local board but not until the board had given you a Selective Service Questionnaire (Form 40) and had an opportunity to consider it following your return of it to the board office. The board also might seek other information on which to base your classification. Ordinarily you would not receive your classification notice for several weeks.

11. What are the classifications?

Classifications currently in use are:

CLASS I-A—Man available for military service.

CLASS I-A-O—Man available for noncombatant military service; conscientious objector.

CLASS I-C—Member of the land or naval forces of the United States.

CLASS II-A—Man necessary in support of the war effort.

CLASS II-B—Man necessary in war production.

CLASS II-C—Man deferred by reason of his agricultural occupation or endeavor.

CLASS III-A—Formerly the class for a man with child or children deferred by reason of maintaining bona fide family relationship. (No more being added to this classification.)

CLASS III-C—Man deferred both by reason of dependency and agricultural occupation or endeavor.

CLASS III-D—Man deferred by reason of extreme hardship and privation to wife, child, or parent.

CLASS IV-A—Man deferred by reason of age.

CLASS IV-B—Official deferred by law and men relieved from liability for training and service.

CLASS IV-C—Neutral aliens requesting relief from training and service and aliens not acceptable to the armed forces.

CLASS IV-D—Minister of religion or divinity student.

CLASS IV-E—Available for work of national importance; conscientious objector.

CLASS IV-F—Mentally, morally, or physically unfit.

12. Suppose I am not satisfied with my classification, what do I do?

You may request an appearance before your local board to discuss your classification within 10 days of the mailing of the notice of classification. There are also appeals to board of appeal which may be made by the registrant, person who claims to be a dependent of the registrant, or anyone who has filed written evidence of the occupational necessity of the registrant, except that no such person may appeal from the determination of the registrant's physical or mental condition by the examining physician, the examining station of the armed forces, or the local board. The notice of classification which the local board sends you bears a full explanation of your rights of appeal and appeal procedures.

13. How shall I know if I will be permitted to finish my school year?

High School.—If you are a student in the last half of your academic year in a high

school or similar institution, such as a preparatory school but not a college or university, and are 18 or 19 years old and request in writing a postponement of induction, you will be allowed to complete the last half of your academic year.

College.—Students in universities and colleges may be deferred under certain circumstances by their local boards. No such deferment, however, is automatic and because rules and regulations change it would be advisable for you to consult the dean of your school or your local board concerning current rules for student deferment.

14. I am not a citizen of the United States but of Germany (or one of the other enemy countries). Am I liable to the Selective Service?

You are liable for military service, but your acceptability must be determined by the armed forces in advance of induction.

15. I am not a citizen of the United States but of Canada (or one of the Allied Nations). Am I liable to the Selective Service?

Yes. You may elect to serve in the armed forces of Canada, however, and should consult your local board about procedure to follow.

16. I am not a citizen of the United States but of Sweden (or one of the neutral countries). Am I liable to the Selective Service?

You are liable for service, but neutral aliens may request relief from service. Such action must be taken in the manner provided by law. You can secure the required information at any local board. If you make such a request, however, you are forever stopped from becoming a citizen of the United States.

17. Suppose I am enrolled at a college away from home at the time I am 18:

(a) Where do I register?

At the nearest local board office. However, you may give either your permanent home or your home at the college as your residence address.

(b) Under whose jurisdiction do I come?

The local board having jurisdiction over the address given at the time of registration as your place of residence.

18. How shall I know whether I will be deferable?

Only your local board, subject to appeal, can advise you whether you will be deferred.

19. Suppose I am away at the time I am 18, where do I register?

At the nearest local board office. However, you can give as your residence address the place where you are or your permanent home.

Under whose jurisdiction will I come—

1. If I remain where I am visiting?

Jurisdiction over you continues in the local board having jurisdiction over the place you gave as your residence at the time of registration.

2. If I return home?

The same as above.

20. What am I to do with my registration card?

Registration cards are retained by the local board. The registrant is given a registration certificate which he must retain in his possession at all times.

21. How soon after I am registered will it be before I receive notice to appear for my physical examination?

That depends upon your order number and the time it takes your individual board to reach your order number and classify you.

22. After registering, I leave my community to go to college or to take a job, what steps must I take, if any, in regard to my draft board?

You must notify your board of change of address and any changes in your status which might affect your classification.

23. What do I do if I change my address but remain within the community?

You are required to notify your local board of any change of address.

24. May I volunteer for service instead of waiting for induction?

Yes. If you wish to volunteer, go to your local board office and advise it that you wish to volunteer for service. If the board does not believe you should be deferred, it will forward you to the induction station at the first time that its call for men makes such action permissible.

25. If I volunteer will I have a choice of the armed force in which I wish to serve?

There are two cases under which you may volunteer:

(a) For any individual: You may express your preference, but the local board can give no assurance that you will be assigned to the service you request.

(b) For certain qualified men: The services will accept certain qualified men for assignment to the Army or Navy Air Corps and also to certain other services such as the Army Engineers. Under this procedure the registrant applies at an Army or Navy recruiting station and if he is approved he is given a letter stating that he is acceptable for special service. He then presents this letter to his local board, volunteers for induction, and is forwarded to the armed forces induction station where he will be assigned to the proper

branch of service by the representatives of the armed forces.

26. What will happen if I do not register as soon as I am 18?

The law provides a penalty of \$10,000 or 5 years in jail or both for persons who fail to comply with the requirements of the Selective Training and Service Act or the regulations promulgated under it.

27. My father is a dairy farmer, I am attending high school but help on the farm every afternoon after school and on week ends. Am I deferable?

To be deferred as an agricultural worker it would be necessary for you to establish to the satisfaction of your local board that you were necessary to and regularly engaged in agriculture, producing a satisfactory number of farm units. It would be up to the local board, subject to appeal, to decide whether you could attend high school and still be a necessary man in agriculture.

28. My father is a dairy farmer, I am attending high school, but since I stay in town except on week ends, am I deferable?

The same answer given to question 27 holds true in this one. However, if you work on the farm on week ends only, it is extremely doubtful that you could qualify as necessary to and regularly engaged in an agricultural activity or endeavor.

29. Do I fill out any questionnaires at the draft board when I register?

No. The regulations provide for mailing questionnaires to you after you register. As heretofore explained, when you register you will be required to answer nine questions so that the clerk of the board or whoever is acting as registrar will be able to fill out your registration card and registration certificate which you must sign. However, some local

boards allow you to complete your questionnaires at the time you register if you care to do so.

30. What does the order number mean? When do I get it?

The order number is the number you hold in your local board showing your place on the list of registrants within that board. It determines the order in which you are classified and will be called for induction. The local board will assign you an order number within a reasonable time. You may obtain it from the board.

31. Do I mention pre-induction courses which I have taken or am taking, or membership in the Victory Corps?

The taking of such courses may be listed on your Selective Service Questionnaire.

32. Do I have to have the questionnaires notarized?

The Selective Service Questionnaire must be notarized. The Occupational Questionnaire need not be notarized.

33. Am I eligible for deferment because of dependency?

Under certain circumstances registrants may be deferred because of dependency, depending on the facts in the individual case. At the present time, however, there are only two classes for dependency deferment. Class III-C is for men deferred because of dependency who are also necessary to agriculture. Class III-D is for men whose induction would cause extreme hardship and privation to a wife, child, or parent.

34. When am I given a physical examination?

You will be given a pre-induction physical examination at least 21 days before being inducted into the Armed Forces. This examination will be given at the induction station.

If you are found acceptable for service, you will be returned to your local board with the report that you are qualified for "Army-General Service," "Army-Limited Service," or "Navy, which includes the Marine Corps and Coast Guard." If you are rejected for all types of service, you would be classified in Class 4-F by your board. After your records have been returned to the local board, the board will mail you a certificate of fitness showing whether you are acceptable for service and, if so, the type of service for which you are qualified. While the local board screening examination generally is to be eliminated, you may request, if you believe that you have a disqualifying defect which is manifest, an examination by a local board examining physician prior to the time of reporting for your pre-induction physical examination.

35. What is, legally, a conscientious objector?

There are two classes of conscientious objectors. One class of conscientious objectors objects to bearing arms but does not object to service in the armed forces. Such men are assigned to Class I-A-O and are inducted into the armed forces if they qualify otherwise. In the armed forces they are assigned to a noncombatant service in the medical corps. The second class of conscientious objectors not only objects to bearing arms but objects to service under military jurisdiction. Such men are assigned to civilian work of national importance in civilian camps.

36. If I am a conscientious objector, must I register with my local board?

Yes.

Induction Station

37. Where shall I report for induction?

Your draft board will tell you where to report and at what time. You will in all like-

likelihood travel to the induction station in the company of a group of other men who are also under the jurisdiction of the local draft board.

38. Who pays for transportation to the induction station?

Transportation will be furnished by your local draft board.

39. How long shall I be at the induction station?

For 1 day; therefore do not take any additional clothing.

40. What happens to me at the induction station?

Normally you will be taken to a reception room to check in and also to be told about the four available Services, namely, Army, Navy, Coast Guard, and Marine Corps. As your name is called, you will have a tag placed on you and you will receive a large card for your physical examination.

If you are not a high-school graduate, you will receive a mental examination at this point. Should you be a high-school graduate or if you have completed the mental examination just mentioned, you will then undress. You will check your clothes. A urinalysis is given and a test is made on the spot. An X-ray is given next so that it will be developed by the time you will receive eye, ear, nose, and throat examinations, a hearing test, a visual acuity test, have your teeth examined, have your blood pressure taken, and have an interview with a psychiatrist. After this you will be measured and weighed and examined by surgeons and othopedist.

At this point you will either be accepted or rejected for service. If you are rejected you will dress immediately and go through another line where you will hand in your papers and receive a ticket for home. If you are ac-

cepted you go before an Army-Navy Board where it is decided what service you will enter.

41. Where do I go from the induction station?

Normally you will return home and await call from your local board. However you may sign a request for immediate induction at any time prior to the time you take your pre-induction physical examination. If you are found physically qualified at the induction station for service, you will be inducted at once.

42. How long do I have before reporting to active duty?

You will have at least 21 days before being inducted into the armed forces after your pre-induction physical examination. If you are called for by the Army, you will be selected from the groups of "Army-General Service" and "Army-Limited Service" registrants and will be forwarded to an Army Reception Center. If you are called for by the Navy, you will be selected from the "Navy" group and forwarded to the Navy Recruiting Offices. You will know soon after returning from your pre-induction physical examination into which group you will be placed.

43. Am I allowed to work between the time I take my pre-induction physical examination and the time I am called?

Yes.

44. When does my military pay start?

The day you report for duty.

45. Is it any advantage to a person to volunteer for induction instead of waiting for regular order number for calling to induction?

Men who volunteer for induction are normally given some preference in assignment.



A Thorough Ear Examination Is Made by a Specialist

Interview With Joint Army-Navy Board to Determine What Service He Will Enter





Taking the Oath

Receiving Instructions for the Day's Processing



46. What should I take to camp with me?

A few extra white handkerchiefs, a change of underwear, an extra pair of socks, and shaving and toilet articles. Leave your valuables at home as well as your camera and radio. If it is all right for you to have a camera or radio you can always send for them.

47. How long do I have to be in the Army before I get a furlough?

No one can provide an answer to that question since there are too many factors involved.

48. For how long must I enlist?

All enlistments and inductions today are for the duration of the war plus 6 months.

49. Will I hear again from my draft board?

Yes. You will receive notice from your draft board as to where and when to report.

Pay and Ratings

50. What are the pay scales and ratings of noncommissioned personnel in the Army, Marine Corps, Navy, and Coast guard?

See table below.

National Service Life Insurance

51. Who set up the National Service Life Insurance and by whom is it administered?

The United States Government set up a plan of Government life insurance in 1940 for those in military service. It is administered by the Veterans' Administration, Washington, D. C.

Ratings of noncommissioned personnel in Army, Marine Corps, Navy, and Coast Guard

ARMY	MARINE CORPS	NAVY	COAST GUARD	MONTHLY BASE PAY ¹
Master sergeant and first sergeant.	Sergeant major and master technical sergeant.	Chief petty officer, permanent appointment. Chief petty officer, acting appointment.	Chief petty officer, permanent appointment. Chief petty officer, acting appointment.	\$138 126
Technical sergeant. . . .	First sergeant and technical sergeant.	Petty officer, first class.	Petty officer, first class.	114
Staff sergeant and technician, 3d grade.	Platoon sergeant. . . .	Petty officer, second class.	Petty officer, second class.	96
Sergeant and technician, 4th grade.	Sergeant.	Petty officer, third class.	Petty officer, third class.	78
Corporal and technician, 5th grade.	Corporal.	Seaman, first class. . . .	Seaman, first class. . . .	66
Private, first class.	Private, first class . .	Seaman, second class. .	Seaman, second class. .	54
Private.	Private.	Apprentice seaman. . . .	Apprentice seaman. . . .	50

¹ Base pay is increased 20 percent for overseas service or for sea duty. Parachutists get \$50 a month extra. Men on submarine duty or flight orders get 50 percent increase in base pay. Men who win a Medal of Honor, Distinguished Service Medal, or other awards receive an extra \$2 a month for each award.

52. Who is eligible for this insurance?

You are eligible for this insurance immediately upon entering military service. If you apply during the first 120 days of service, no physical examination is required.

53. Where may I sign up for this insurance?

You may sign up for this insurance at the reception center or during recruit training. You become insured just as soon as you complete an application and authorize the deduction of the premiums from your pay. The insurance is not automatic.

54. In what amounts is the insurance issued?

The insurance is issued in amounts of from \$1,000 to \$10,000 in multiples of \$500. You can take out any amount within these limits.

55. Is this term or straight life insurance?

The insurance is 5-year term insurance with no cash value. However, after the first year of membership and before the 5-year period has expired you may change the insurance policy into one of ordinary insurance, 20-payment life or 30-payment life.

56. What are the premium rates that I pay?

The monthly cost to you for each \$1,000 of National Service Term Life Insurance is 64 cents at the age of 17 or 18, and 65 cents at ages of 19, 20, and 21.

57. What are the disability provisions?

If you are released from service and are disabled for 6 months or more so that you cannot follow a gainful occupation, the premium payments need not be paid while the disability continues and your insurance remains in force.

58. Whom may I elect as beneficiary?

You may elect (1) parents, (2) sisters or brothers, (3) wife or husband, (4) children. No others may be named as beneficiary.

59. Are payments to beneficiary made in lump sums or in monthly installments?

Monthly installments are paid to the beneficiary in amounts depending entirely upon the age of the beneficiary at the time payments are made.

Service Men's Dependents Allowance Act of 1942, as Amended

60. What is the Service Men's Dependents Allowance Act of 1942, as amended?

The Service Men's Dependents Allowance Act of 1942, as amended, sets up a system of payments for dependents of sergeants; technicians, 4th grade; corporals; technicians, 5th grade; private first class; and privates in the Army; and for sailors and Marines of corresponding ranks. In the Navy these corresponding ranks are petty officer third class; seaman first or second class; and apprentice seaman.

61. What dependents are eligible for allowance payments?

Dependents eligible for allowance payments are divided into two classes: CLASS A—Wife, children (adopted or stepchildren), divorced wife to whom alimony is paid. These need not be proved to be dependent upon you to be eligible. However, relationship must be proven by submitting a certified copy of a record of marriage, birth certificate, divorce decree, or adoption. CLASS B—Parents, grandparents, stepfather, stepmother, brothers or sisters or grandchildren who are unmarried and under 18 years of age or incapable of self-support. These must be shown to be dependent upon you for a substantial part of

their support and they must also prove their relationship to you.

62. How is the allowance payable to dependents made up?

The allowance payable to dependents under the act is made up in part by allotments deducted from your service pay and in part by supplementary payments from the Government.

63. Are payments made automatically?

Payments to dependents are not made automatically. You or your dependents must apply for them. Applications are made out during the time you are at the reception center or at the recruit training stations. However, if you cannot or do not make application, your dependents may make the application.

64. How can a relative who is dependent upon the soldier for a substantial portion of his or her support prove that fact?

By submitting with the application affidavits from at least two reputable, disinterested persons attesting to the relationship and the degree of dependency of the relative to the soldier.

65. May a mother having two sons in the service receive an allowance from both of them?

Yes, provided it can be shown that each had in civil life contributed a substantial portion to her support.

66. Is it compulsory for a soldier to apply for a family allowance for his Class B dependents?

No. A family allowance for eligible Class B dependents is entirely optional with the soldier and may be stopped any time at his request.

67. Where may dependents of men in the service get information on family allowances?

ARMY: Office of Dependency Benefits, 213 Washington St., Newark 2, N. J. NAVY: Bureau of Naval Personnel, Navy Department, Washington 25, D. C. MARINE CORPS: Commandant, U. S. Marine Corps, Washington 25, D. C. COAST GUARDS Commandant, U. S. Coast Guard, Washington 25, D. C.

U. S. Armed Forces Institute

68. What is the purpose of the U. S. Armed Forces Institute?

The U. S. Armed Forces Institute, an official agency of the War and Navy Departments, provides the means for men and women to continue their education by correspondence courses, self-teaching courses, and class-instruction materials, at both secondary school and college levels.

69. Who is eligible?

If you are an enlisted man, you are eligible to enroll after you have completed your basic training.

70. What is the cost?

The cost will depend on which of the plans you select. For example, if you take one of the Armed Forces Institute courses, the fee for each course is \$2 which you pay when you first enroll. However, if you take a correspondence course under the university or college extension plan, the Government will pay half the text and tuition fees up to the amount of \$20.

71. What are some of the correspondence courses which I may take for a payment of \$2?

English, American history, algebra, geometry, shorthand, air conditioning, Diesel

engines, aviation, plumbing, steamfitting, mechanical drawing, electricity, gas and electric welding, surveying, and carpentry. Upon the completion of the course an examination is given, and upon the satisfactory completion you are awarded an official certificate.

72. What are some of the courses which may be taken for college or high-school credit?

Some of the 700 subjects and courses at both the secondary school and college level offered in cooperation with the U. S. Armed Forces Institute by the extension divisions of more than 80 American colleges and universities are: accounting, art, aviation, chemistry, economics, education, engineering, Government, journalism, mathematics, psychology, science, sociology, writing, and pharmacy.

73. What happens in case I enroll while in the continental United States and am then sent overseas?

An individual who enrolls while in the States and is then sent overseas may continue with his course. As soon as he knows his A. P. O. or F. P. O. number, he merely notifies the institute or college under which he is studying. All students have the right to use official photo-mail service for prompt return of their lessons. Courses offered by and through the U. S. Armed Forces Institute are as popular with the men overseas as they are with those in the continental United States.

74. Whom should I see if I am interested in the Armed Forces Institute?

See the Education Officer or Orientation Officer in the Army or the Educational Services Officer in the Navy, the librarian, Red Cross Field Director, chaplain, or some other official with responsibilities for off-duty education.

Educational Experience Summary

75. What is the Educational Experience Summary?

The Educational Experience Summary is an individual inventory of your accomplishments during your secondary school career.

76. From whom may I receive a copy so that I may have it filled out?

You may obtain a copy of the EES card from your high-school principal. These cards are furnished to him free of charge by his State department of public instruction.

77. What items are to be included on this card?

Items such as citizenship, vision, hearing, physical impairments, scholastic achievements, subject preference, rank in class, special aptitudes, significant hobbies, interests and extracurricular activities, preferred peacetime occupations, vocational preparation and pre-induction courses, and wage-earning experience while in secondary school are of special significance.

78. What assistance can this card render me in my interview at the reception center or the recruit training stations?

Since you will have had very little significant wage-earning experience upon which to base classification and assignment to one of the branches of service, it will be important that the interviewer and classifier have available authentic information as to your previous accomplishments. It is especially important to know how well you did in your scholastic work; what your special aptitudes are; what your significant hobbies, interests, and extracurricular activities have been; what vocational preparation and pre-induction courses you have had, and also what wage-earning experiences you have had. The more information the interviewer and classifier has

about your background, the better chance you have of getting a job in the armed services for which you are fitted. Remember that you are competing with older men who have had specific occupational experiences.

79. What assistance can this card render me at the induction station?

It is considered a verification of your high-school graduation if so attested.

Keeping Material Up to Date

80. How does the U. S. Office of Education plan to supplement Service in the Armed Forces with up-to-date information?

In EDUCATION FOR VICTORY changes will be carried from time to time which are keyed to the numbered questions in SERVICE IN THE ARMED FORCES.

SERVICE IN THE ARMED FORCES

Part 2.

UNITED STATES ARMY¹

Reception Center

81. How long will I be at the reception center?

Under normal conditions you will be at the reception center between 4 and 5 days. However, you may be held over longer than that if you have certain skills for which there is no call at the time. The Army is anxious to classify and assign its men to the branch where they can make the greatest contribution.

82. What happens to me during the reception period?

You do not usually get processed the first day. You may receive your clothes issue. Dog tags are given to you upon which are stamped your name, serial number, and other items.

During the clothes issue the following is likely to happen to you: Into your empty barracks bag you will put your civilian hat, coat, shirt, and tie. These you will send home later in the day at no cost to yourself. Next you will get measured for all of your clothes except shoes; you will even be measured for socks.

Next you will be measured for shoes. It is possible to fit on the spot people with sizes from 3 to 15½. Each individual is given two pairs of shoes. As you go down the clothing line you will receive the clothing according to the sizes obtained from the measurements taken earlier. You will get two summer and two winter outfits, a Soldier's Handbook and Personal Affairs of Military Personnel and Aid for Their Dependents. Next you will check your equipment and put it in the barracks bag as soon as the item has been called off. Items missing are supplied immediately. Each man is now individually fitted for shirt, suntan trousers, woolen trousers, field jacket, blouse, and overcoat. The men who do the fitting have experience as fitters in clothing stores and clothing factories. If necessary, the individual items are sent to the tailor shop for alterations.

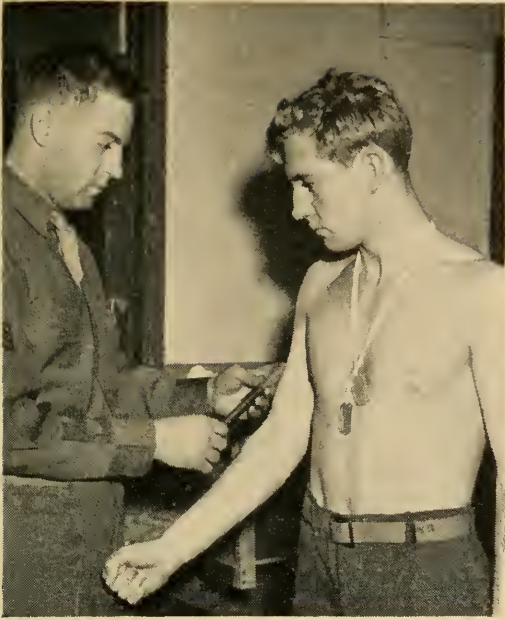
83. When do I get my shots?

During your stay at the reception center you will get your tetanus and typhoid shots and the smallpox vaccination.

84. When do I take out insurance, war bonds, and dependency allotments?

You are given a talk, allowed to ask questions, and then given a chance to sign up. About 99⁹/₁₀ percent of the men take out insurance.

¹Information about the WAC's has not been included since the minimum age for enlistment of girls is 20 years, and since this pamphlet is designed for youth of high-school age. For information about the WAC's, get the following booklet from your nearest recruiting office: 73 Questions and Answers About the WAC. War Department, Washington, D. C. August 1, 1943. 15 p.



Being "Shot"



Sending Home His Civilian Clothes

The Interview



85. What do I do after supper?

After supper you may receive a lecture from one of the chaplains, have the Articles of War explained to you, or observe motion pictures of military courtesy, and several other films. This procedure will vary from center to center.

86. When do I get my tests?

The day after you come in you will take the Army General Classification Test (AGCT), which takes 40 minutes. It is very important that you do well on this test. Since officer candidate training and Army specialized training candidates must attain high scores on the AGCT, you will want to do an especially good job. You will also be given a Mechanical Aptitude Test. It is possible that you will also be selected to take the Army Radio-Telegraph Operator Aptitude Test. This is a code listening test to see if you can learn radio code. Do not worry if you do not know code since you are not supposed to. All of these tests are short-answer tests. You do not write out an answer—merely make a mark in the proper boxed space. The schedule as outlined here may vary slightly among the various reception centers.

87. When am I interviewed?

After you have taken your tests your marks are entered on your Soldier's Qualification Card which is WDAGO Form 20. This card has spaces to enter complete information about your education, experience, and hobbies. If you say that you can type, you may be given a test immediately to see how fast you can do so. If you claim an occupation such as a radio repairman you may be given oral trade tests. This is an important time to exhibit any records of your training and experience such as found on Educational Experience Summary cards. Bring this card with you. You are given your first assignment on the basis of information obtained during this interview and the grades you made on the Army tests.

88. When shall I be classified?

Immediately after you have been interviewed a classifier goes over your card and makes recommendations on the basis of information obtained during the interview. Do not be disappointed if given a job different from the one you state you would like to have. The Army has to take its needs into account first and it has to decide where you will fit in best.

89. How do I get into any particular branch of the Army?

When you are being interviewed be sure that you state your preference. However, be sure that what you ask for is in line with your previous education, training, and experience. If you are well qualified for the thing that you request and if there is need for men in such work at the time you make such a request there is a fair chance of your getting into that branch or special work. It must be kept in mind that we are in a war and men are assigned to that type of duty in which the Army's Classification Service feels that you can make the greatest contribution toward winning the war.

90. What main branches are included in the Army ground forces?

Included under Army Ground Forces are the Infantry. Field Artillery. Armored units. Airborne units. Coast Artillery (including antiaircraft). Cavalry. and Tank Destroyer units. AGF operates a huge school system for its various branches, many large maneuver areas, overseas replacement depots, and amphibious training centers in conjunction with the Navy.

91. What are the various job opportunities in the Army Air Forces?

Enlisted men may serve as the following ground technicians: Aircraft armorer, aircraft machinist, aircraft metalworker, aircraft welder, aircraft mechanic, teletype repairman.

link trainer instructor, parachute rigger, photographer, radio operator and mechanic, weather observer, administrative clerk, and supply and technical clerk. Enlisted men may also qualify as glider pilots, staff sergeant pilots, aerial engineers, radio operators, and aerial gunners.

92. What are the various sections of the Army Service Forces?

The Army Service Forces consist of two major sections, namely, the supply services and the administrative services. Under the supply services are included the Corps of Engineers, the Quartermaster Corps, the Ordnance Department, the Chemical Warfare Service, the Signal Corps, the Army Transportation Corps, and the Medical Department. The administrative services include the Finance Department, the Adjutant General's Department, the Inspector General's Department, the Judge Advocate General's Department, the Provost Marshal General's Department, the Corps of Chaplains, the Army Exchange Service, and the Morale Activities Division.

93. What are some of the activities of various arms and services?

Air-borne Command: Air-borne troops are ground fighters transported to the scene of action in one of three ways: By parachute from transport planes; by transport planes which land near the scene; by gliders towed to the vicinity and landing near the scene. These troops are organized into air-borne divisions which include Infantry, Field Artillery, and the other supporting units of an Infantry division. The air-borne mission is to seize important localities or installations in conjunction with or pending the arrival of other forces.

Armored Command: Armored divisions are combinations of tanks, Infantry, and Field Artillery, with supporting units, organized to perform decisive missions requiring great mo-

bility and firepower. Primary mission is in offensive operations against hostile rear areas, although capable of engaging in all forms of combat. There are also separate tank battalions.

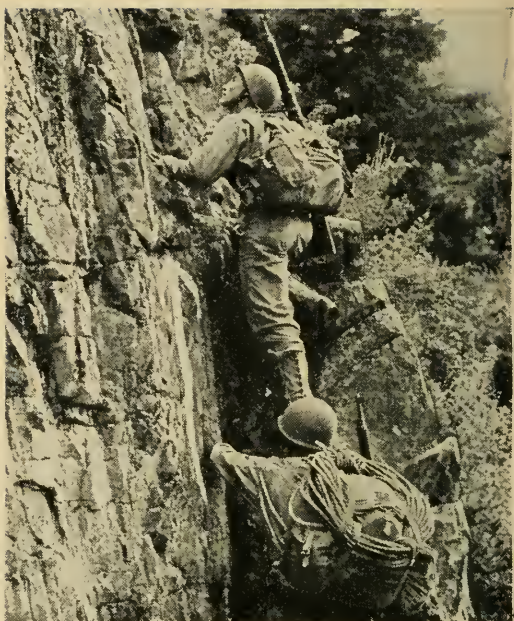
Cavalry: The horse cavalry still has a definite place in modern warfare, although most cavalry today is mechanized. Its major mission is reconnaissance, with security and screening operations as secondary missions. Cavalry is capable of offensive combat, its special value derived from the ease with which its firepower can be moved from one position to another. Horse cavalry normally maneuvers mounted but fights on foot with Infantry weapons.

Coast Artillery Corps: Divided into seacoast artillery and antiaircraft, the Coast Artillery is characterized by the great amount of fire it can deliver against naval and air targets. Seacoast artillery, both fixed and mobile, protect against attacks on our beaches through guns up to 16-inch size. Antiaircraft artillery protects against air attacks on troops or installations through automatic weapons and guns up to 90-mm size. Also included in the Antiaircraft Command are searchlights and barrage balloons.

Infantry: No one arm wins battles, but the Infantry's mission is the conclusive one which all other arms help it attain: In offense, to close with the enemy and destroy or capture him; in defense, to hold its position and repel the enemy attack. Its weapons include rifle, carbine, pistol, bayonet, grenades, mortar, machine gun, automatic rifle, rocket launcher ("Bazooka"), howitzer and anti-tank guns. Infantry fights by fire, movement, and shock action. Certain units receive special training in mountain, Alpine, and jungle operations. It reaches its scene of action by marching, motor, amphibious movements, skids, or air. Infantry divisions are combinations of Infantry, Field Artillery, and supporting units.



Paratrooper . . . Get Ready . . . Get Set



Mountain Troops in Action

Fire . . . and a Shell Leaves the 240-mm Howitzer





Landing Craft Infantry Moving in To Take Over

Engineer Amphibian Command . . . Landing Craft Protected by Balloons





Air-borne Troops Entering Glider

Cavalry in Action



Field Artillery: Characterized by high degree of flexibility, Field Artillery fire supports Infantry and other units by neutralizing or destroying targets most dangerous to the supported arms, and gives depth to combat by counter-battery fire, fire on hostile reserves, and command agencies. Its principal weapons are 75-mm howitzer, 105-mm howitzer, and 155-mm gun.

Tank Destroyer: A comparatively new branch of the Army Ground Forces, the Tank Destroyer Command is closest to Field Artillery in its functions, with a mission of neutralizing and destroying hostile armored forces through fire. Its weapons are highly mobile artillery of various designs, marked by great muzzle velocity and penetrating power.

Corps of Engineers: The Corps of Engineers does construction work in the field designed to increase combat effectiveness of troops, facilitate their movement, and hinder the movement of the enemy. Engineers increase the mobility of ground troops with their expert construction activities, maintenance and repair of communications, and other allied missions. Most amphibious forces are under the control of the Engineers and assault landings are one of their most important training phases. General engineer troops include divisional combat engineers and general service battalions charged with maintaining supply lines. Special engineer troops include: Topographic, camouflage, railway operating, water supply, pontoon bridge, depot, and shop repair units. Although combat duties are one of the main functions of this Corps, the Army has placed this organization in the Army Service Forces, transferring them from the Army Ground Forces.

Quartermaster Corps: The Quartermaster Corps is charged with the procurement, storage, and issue of all supplies of standard manufacture and of all supplies common to the various branches of the service with the

exception of arms and ammunition which is handled by the Ordnance Department. It arranges, in conjunction with the Transportation Corps, troop movements and shipping of supplies. It operates the general labor pool within divisions and larger units. Bakeries, commissaries, refrigerating, incinerating, printing, and textile repair and salvaging duties are also functions of this group. Laundries, baths, fire-protection units, baggage collection stations, cemeteries, blacksmith shops, motor transportation pools, and other such service functions are also under the control of the Quartermaster Corps. The Quartermaster Corps operates the graves' registration service, including acquisition of land for burial places; procurement of real estate, including land, buildings, docks, wharves, and right-of-ways. Quartermaster regiments are an organic part of every combat division supplying food, clothing, and other necessities in the field.

Ordnance: The Ordnance Department is charged with the procurement, storage, and issue of ammunition, arms and armament (excluding chemical warfare), motor transportation, and fire-control equipment. It reclaims and disposes of abandoned and captured ordnance supplies. It disseminates technical information regarding ordnance material. One of its chief functions is the testing and proving of various arms and setting standards and qualifications for the manufacture of such material as is needed by the combat arms.

Chemical Warfare: The principal function of the Chemical Warfare Service is to provide chemical materials and gas defense appliances. It is charged with the investigation, development, procurement, and supply of all smoke and incendiary materials, all toxic and non-toxic gases, and all such protective and defensive devices as may be employed. Combat units of this service are concerned mainly with the planting of smoke screens, land mines, and other such devices. Extensive research in



Flame Thrower Completing the Job

Medium Tanks in Action





"Molotov Cocktail" Being Served Up to a Tank



Decontamination Uniform and Equipment

Cold Steel



chemical warfare is conducted. This arm also plays an important role in connection with civilian defense, giving indoctrination courses and publishing general information in connection with air raids where gases might be employed.

Signal Corps: Signal Corps Troops have the combat mission of providing signal communication of the large units to which they are assigned. They are immediate agencies of the commander in whose services they provide channels of signal communication, transmit and receive orders and reports. They install, maintain, and operate signal communication systems in combat from headquarters known as command posts or message centers. Telephone, teletype, telegraph, and, more recently, electronics and radar equipment are all employed in this mission as well as pigeon carrier systems. Field photography is also another important phase of the Signal Corps' work.

Transportation Corps: The functions of this Corps include directing, supervising, and coordinating all transportation functions of the Army. The Transportation Corps to a large degree has charge of ports of embarkation, staging areas, and overseas receiving stations. One of the most important functions of this command is the supervision and coordination of arriving shipments in foreign ports. For some time this Corps was a part of the Quartermaster but has recently been given the status of a full-fledged service. Its personnel is comparatively small and large numbers of civilian employees are maintained.

Medical Department: The Medical Department has three basic responsibilities: First, the selection and qualification of medical officers, dentists, contract surgeons, veterinarians, nurses, and other allied personnel; second, the preservation of the health of the enlisted and commissioned personnel; and third, the restoration of the health of those who are sick, wounded, or injured. Maintenance of hos-

pitals, prevention of disease, sanitation, inspection of meats and food products, and preparation and proper distribution of medical records are also included. Medical personnel assigned to units of the field forces includes two general divisions: First, to each unit of the several arms and services such as the infantry or artillery regiment, medical personnel known as the attached medical personnel is provided. These men retain their identity as members of the medical department. In action they are concerned with the assembly of the sick and injured at aid stations and their preparation for evacuation to the rear. . Second, the medical regiment, which is a component of divisions. These medical units are charged with clearing of casualties from aid stations from which those who require further care are moved by ambulance or train to hospitals where definite treatment may be administered. Today the medical corps faces a huge problem, and one which will rapidly increase, in the housing, care, and treatment of wounded personnel returning from overseas.

Army Air Forces: The AAF carries out the various phases of the use of airplanes for attack, defense, reconnaissance and transport at home and abroad. It maintains and operates the different types of planes required, the necessary ground and air crews, airfields, and weather services. Its functions involve the design, equipment, armament, procurement, and supplying of planes and ground installations, working in conjunction with Ordnance and the Quartermaster Corps. Aerial photography and Air Combat Intelligence are important corollary activities.

94. If I dislike the branch of service to which I am assigned, may I request a transfer?

Transfers today are for the convenience of the Service only. Unless it can be proved that your transfer will be in the better interest of the Service, you probably will not get a transfer.

95. May I transfer from the Army to some other branch of the service?

Extremely doubtful.

96. How much training will I receive before being sent overseas?

All men prior to being shipped overseas are given adequate training—the length of time is determined by the type of arm or service to which you belong.

97. Do I get any training at the reception center?

You learn to march and drill at the reception center. You also learn basic military courtesies.

98. Is it true that Army food is “not so hot?”

The proof that this is not true is that men in camps increase in strength, weight, and endurance, and that most of the better foods today, despite protests of civilians who think they are being subjected to undue hardships because of rationing, go to the men in the fighting forces. The “chow” of the American Army and Navy is considered the best in the world. Don’t forget that the transition from civilian life to that of a soldier brings increased stress and emotional strain, especially during the first few weeks of camp life, and as a result food may not appear too appetizing. Getting emotionally accustomed to Army (or Navy) life has a great deal to do with the way food appeals to you.

99. What happens to me after being in the reception center from 4 to 5 days?

Normally you will be sent either directly to a replacement training center for your basic military training or in certain cases sent directly to a field unit. The usual procedure, however, is to go from the reception center to a replacement training center.

100. Will I be given time to go home?

No.

Replacement Training Center

101. How long will I be at the Replacement Training Center?

You will normally be at the Replacement Training Center (Army Service Forces) about 17 weeks. The first 6 weeks will constitute basic military training, the next 8 weeks will be basic technical training, and the last 3 weeks will be basic field training, when you will be out on maneuvers. Basic training is much the same in any branch of the armed forces.

102. Do I have a chance of being assigned to some other branch of the service?

At the Replacement Training Center your Form 20 is checked for misassignment and other errors. If any are found, you are called in for an interview. A classification questionnaire is also filled out during the first week to supplement Form 20. If you have qualifications badly needed by a branch other than the one you are in, you may be reassigned. At the same time, applications for aviation cadets and paratroops can be taken, and if you are accepted, you will be sent before taking basic training to the branch for which you applied.

103. Are other tests given during the period?

The consultation service gives a considerable number of individual tests. Additional tests are given on the Army General Classification Test for Officer Candidate Schools or the Army Specialized Training Program. Any tests which were missed at the Reception Center are also given.

104. Are any physical examinations given?

You are given a physical examination upon reporting to the replacement training center

as well as every month during training and a final examination before leaving camp. Shortly after reporting to the camp you will have your teeth examined as well as your eyes. Glasses and dental work are taken care of immediately. Shots and vaccinations are also completed during this period.

105. What subjects are covered during the period of replacement training?

Such subjects as: Articles of War, Organization of the Army, Military Discipline, Military Sanitation, First Aid, Dismounted Drill, Rifle Marksmanship, Individual Security and Scouting and Patrolling, Defense Against Chemical Attack, Defense Against Air Attack, Field Fortifications, Night Operations, Map Reading, Rigging, Interior Guard Duty, Physical Conditioning, Safeguarding Military Information, and Defense Against Mechanized Attack.

106. What about specialist school training?

As an example, the following course of training is pursued at the Engineer Replacement Training Center: During the first 6 weeks of basic training the officers are constantly watching the men for leadership ability, aptitudes, attitudes, interests, and specific abilities. The officers' estimates of the recruits are then checked along with Form 20 and the Classification Record. On these bases men are selected for Advanced Specialist Service Schools and for the Engineer Replacement Training Center Specialist Schools. About one-quarter of the men from each company are picked for the ERTC Specialist Schools for such work as truck driving, clerical work, cooking, and heavy equipment operation.

107. What type of courses is given at the service schools?

Courses are given in communication, motor mechanics, welding, blacksmithing, radio

operating, motor maintenance, meteorology, photography, water purification, and sheet metal and radiator repair.

Enlisted Reserve Corps of the Army—Unassigned

108. What are the entrance requirements?

You can enlist in the Enlisted Reserve Corps of the Army—Unassigned upon reaching the age of 17. You must complete the application blank, obtain three letters of recommendation, have copies of the parents' consent form filled out in duplicate, and take a physical examination.

109. To what branch am I assigned?

You are not assigned to any branch while in high school or previous to induction. You will be assigned a branch of service through your regular reception center channels, depending upon your qualifications and the demand at the time you are at the center. You have the privilege of stating your preference for branch of service. No assurance, however, is given that you will be so assigned.

110. Do I wear a uniform, receive pay, or have to drill while in high school?

No.

111. How long am I a member of the ERC unassigned?

You will be called to active duty in a period not exceeding 6 months from the date of your 18th birthday.

112. Shall I be given a preference in regard to the Army specialized training program over someone who is not now a member?

No. There is, however, an Army Specialized Training Reserve program open to boys

between the ages of 17 and 18 who have taken the A-12 examination and have obtained a satisfactory grade. In order to take the Army Specialized Training Reserve Program an individual must join the ERC—Unassigned. But the mere belonging to the ERC—Unassigned without getting satisfactory grades on the A-12 will not let an individual into Army Specialized Training Reserve Program. The Army Specialized Training Program is available only to a soldier who has completed his basic training and has obtained a grade of at least 115 on the AGCT.

113. Is it possible for me after joining the ERC—Unassigned to drop out and enter the Navy, Coast Guard, or Marines?

No.

Army Specialized Training Reserve Program

114. What is the purpose of the Army Specialized Training Reserve Program?

The reserve program is designed to provide a flow of qualified young men toward Army Specialized Training prior to their entry into active military duty. It permits uninterrupted training for many of these young men who might otherwise lose valuable time during a gap between high school and college. In this way qualified high-school graduates in their 17th year begin immediate academic instruction in basic phase courses of the Army Specialized Training Program at selected colleges and universities.

115. What are the qualifications for Army Specialized Training Reserve Program?

In general, candidates for the Reserve Program must:

- (1) Have a high-school education or its equivalent.
- (2) Be 17 years old and not have reached

their 18th birthday prior to entering the Reserve Program.

(3) Have passed the A-12 College Qualifying Test.

(4) Be voluntarily enrolled in the Enlisted Reserve Corps.

(5) Meet physical requirements for general service.

(6) Designate Army preference on College Qualifying Test.

116. What does this military scholarship cover?

It covers tuition, messing, housing, and such medical service as is customary at the institution. Reservists are not entitled to Army pay, are on inactive duty, and wear civilian attire.

117. When does a reservist take his basic military training?

At the end of the term in which the Reservist reaches his 18th birthday he is placed on active military duty and is sent to an Army replacement training center for the prescribed basic military training. On completion of that training he is screened for continuation in the Army Specialized Training Program. If found qualified, he is assigned to a particular field of study at an Army Specialized Training unit located at a college or university.

118. What studies do Army Specialized Training Program reservists pursue?

English, history, geography, sciences, and mathematics.

Army Specialized Training Program

119. What is the purpose of the Army Specialized Training Program?

The Army Specialized Training Program (ASTP) is designed to provide a continuous flow of high-grade technicians and specialists needed by the various arms and services.

120. What are the admission requirements to ASTP?

You must be on active duty as an enlisted man and have scored at least 115 on the Army General Classification Test. In addition, soldiers under 22 years of age must have had at least a high-school education, including prescribed work in mathematics. Any in this group who have had more than 2 years of college must have a substantial background in at least one foreign language, or their college work must have included at least 1 year of physics, mathematics, or biology. Soldiers 22 years of age or over must have successfully completed at least a year of college. They must have a substantial background in one or more foreign languages, or their college work must have included a year of mathematics and physics or a year of biology. Those who have had more than 3 years of college must have majored in engineering, premedicine, predentistry, or they must have a substantial background in one or more foreign languages. (Certain medical students are not included in this statement.)

121. Do I have to be in the Army and take basic training before being assigned to ASTP?

Yes. All who receive a score of 115 or better on the Army General Classification Test and who, on the basis of information given on Form 20, meet the other requirements for the ASTP are sent to a Replacement Training Center or other Army installation for their basic military training. Here they receive the Personal Data and Interview Form which is filled out in triplicate. A copy is given to the AST Field Selection Board before whom the eligible soldier appears. Those found generally qualified are sent, within quotas determined from time to time by the Army, at the end of their basic military training, to a Specialized Training and Reas-

signment (STAR) unit. (This statement does not include all medical students.)

122. Who determines and on what basis is it decided what I shall take in the ASTP?

A STAR Classification Board, operating at each STAR unit, interviews the soldiers and administers the tests to determine if they are finally qualified. Soldiers who qualify are selected for a specific course of study in the highest term for which they are found capable. Those qualified are then sent to an AST unit.

123. Have I a choice as to what field I would like to specialize?

You may express a choice, although no assurance is given that you will be selected for that field. You will be assigned only to a field for which you are qualified and for which there is a vital need in the Army.

124. What allowances are available to me while in training?

You will receive Regular Army pay appropriate to your grade during basic training, plus quarters, subsistence, uniforms, tuition and fees, books, and medical service.

125. What are the different curricula?

ASTP curricula include: Chemical engineering, civil engineering, electrical engineering (communications and power), mechanical engineering, sanitary engineering, marine transportation, medicine, dentistry, veterinary medicine, personnel psychology, languages, foreign area study, surveying, internal-combustion engines specialization, basic communications, acoustics and optics, and military and physical training.

Some curricula will be curtailed for periods during which quotas of training in a particular field of study have been fully satisfied. Curricula have been and will be modified in the light of the practical experience

gained in their actual operation. The program is expected to retain such resiliency for the purpose of maximum effectiveness.

126. What determines how long I will remain in training?

It is expected that you will move from term to term to the completion of your course. However, all trainees are subject to call to other active duty at all times. At the end of every 12-week term you can be recommended for one of the following:

- (1) Consideration for continuation in the ASTP.
- (2) Consideration for Officer Candidate School (OCS).
- (3) Assignment to Army Service Schools.
- (4) Assignment to other military duty.

127. Will I be able to take part in intercollegiate sports?

No. ASTP trainees are being trained for specific Army duties at Army expense. Their concentration on a full schedule of study does not allow sufficient leeway for participation in intercollegiate sports.

128. May I take part in extracurricular college activities?

Yes. You are permitted to participate in extracurricular college activities so long as these do not interfere with your academic or military programs.

129. What drill, etc., do I receive while in training?

Except in the case of trainees in medical, dental, and veterinary courses all others get 5 hours per week of military training. Physical training requires an additional 6 hours per week, 3 periods of 2 hours each: mainly aquatics, combatives, gymnastics, obstacle courses, and team sports. ASTP trainees in medicine, dentistry, and veterinary medicine receive military and physical training in modified form adjusted to their heavy clinical schedules.

130. Suppose I qualified in the A-12 examination given in my high school or college, what happens?

The A-12 examination makes it possible for high-school graduates between 17 and 22 years of age to become earmarked for the ASTP prior to entering the Army on active duty. Other qualifications must be met, including a score of at least 115 on the Army General Classification Test. Those who receive an acceptable score in the test and who express preference for the Army are sent notices of qualification. Special notices of eligibility for a military scholarship are sent to the 17-year-olds eligible to become candidates for military scholarships. Any among the 17-year-olds who pass the test but are not candidates for military scholarships, together with all others who receive satisfactory scores in the College Qualifying Test, are instructed to present their qualifying notices to Army authorities after induction. These qualifying notices entitle them to be sent at that time to special training centers for their basic military training. Upon the satisfactory completion of their basic military training they will be assigned, if they qualify, to Army Specialized Training.

United States Military Academy

131. What is the purpose of the United States Military Academy?

The United States Military Academy at West Point, N. Y., is an educational institution of collegiate grade, established by the Government and supervised by the War Department, for the purpose of training young men for military service and for careers as officers in the Regular Army.

132. How are appointments made to the United States Military Academy?

All appointments are made by the President.

133. Who nominates the candidates and what are the sources of admission?

Strength of the Corps of Cadets

Under an act of Congress approved June 3, 1942, the Corps of Cadets shall hereafter consist of 2,496 cadets, appointed in number and from sources as follows:

8 from each State at large-----	384
4 from each congressional district-----	1,740
4 from each Territory (Hawaii and Alaska)---	8
6 from the District of Columbia-----	6
4 from natives of Puerto Rico-----	4
2 from Panama Canal Zone-----	2
172 from the United States at large-----	172
180 from among the enlisted men of the Regular Army and of the national Guard, in number as nearly equal as practicable--	180
Total -----	2,496

Of whom 3 are appointed upon the recommendation of the Vice President, 40 are selected from among the honor graduates of those educational institutions designated as "honor military schools," and 40 are chosen from among the sons of veterans who were killed in action or died prior to July 2, 1921, of wounds received or disease contracted in line of duty during the first World War.

Section 2 of the act of Congress approved June 3, 1942, provides: When on the date of admission of a new class the total number of cadets is below the number authorized, the Secretary of War may bring the Corps of Cadets to full strength by appointing qualified alternates and candidates recommended by the academic board, two-thirds thereof from qualified alternates and one-third there-

Cadet Corps Passing in Review



of from qualified candidates: Provided, That any appointment made under this section shall be an additional appointment and shall not constitute an appointment otherwise authorized by law.

The selection of candidates for appointment from any State at Large or congressional district is entirely in the hands of the Senator or Representative in Congress who has the vacancy at his disposal and all applications for appointment from those sources should be addressed to the proper Senator or Representative.

134. How are appointments made from honor military schools?

Honor graduates of "honor military schools" are selected for appointment under regulations prescribed by the War Department.

135. Is it possible to enter West Point from the enlisted ranks?

In 1943 the sources of admission from among members of the National Guard and Regular Army have been combined for the duration of the present war and opened to all enlisted men of the Army of the United States meeting the requirements.

136. What are the qualifications for appointment?

A candidate for cadetship must: (1) Be a citizen of the United States, (2) never have been married, (3) be between the ages of 17

and 21 (inclusive), (4) pass a rigid physical examination, (5) meet educational and mental requirements, (6) be at least 5 feet 6 inches in height, and (7) be from 115 to 208 pounds in weight, proportionate to age and height. Full information relative to all sources of admission and the mental and physical requirements for entrance may be obtained by requesting from The Adjutant General, War Department, Washington, D. C., a copy of the *West Point Information Pamphlet to the United States Military Academy*.

137. What is the pay while at West Point?

The pay of a cadet is \$780 a year, plus one ration a day, beginning upon his admission to the Academy. A deposit of \$300 upon admission is required.

138. What degree is awarded upon graduation?

The bachelor of science (B. S.).

139. What commission does a graduate receive?

Second lieutenant in any arm or corps of the Army in which there may be a vacancy and in which the duties are of the kind that he may have been judged competent to perform.

140. How long is the course?

Three years for the duration of the war—normally four years.

SERVICE IN THE ARMED FORCES

Part 3.

UNITED STATES ARMY AIR FORCES

Civil Air Patrol Cadets

141. What is the Civil Air Patrol?

The Civil Air Patrol is the auxiliary civilian flying branch of the United States Army Air Forces.

142. What is the purpose of the Civil Air Patrol?

Today the main purpose of the Civil Air Patrol is to give supplementary training to predraft youth in the practical application of preflight aeronautics, military leadership, and physical fitness which will equip them for a future in the AAF as bombardiers, navigators, pilots, and other members of the air and ground crew.

143. What courses are offered in Civil Air Patrol Cadet training?

Most CAPC training units offer theory of flight, aircraft construction, power-plant study, instruments, map and aerial photograph reading, air navigation, meteorology, Civil Air Regulations, control tower procedure, observation and reconnaissance, instrument flying, Morse code, use of firearms, military leadership, and physical fitness.

144. What are the requirements for CAPC membership?

Membership is limited to students in good

scholastic standing in junior college or in the last 2 years of senior high school who are physically fit for duty in the armed forces and whose parents or guardians are American citizens. Members of the Air Corps Enlisted Reserve are automatically eligible for enlistment in the CAPC.

145. When is instruction given and by whom?

Instruction is usually given evenings or Sundays by CAP members best qualified to teach. CAPC credit is given for preflight courses taken in high school.

146. Is flight instruction given?

Flight instruction is given by CAP members only where facilities permit. But activities are centered around airports insofar as possible so the cadets can become familiar with planes.

147. What is a typical CAPC unit?

A typical CAPC unit is a squadron of 50 to 200 members with its own cadet leaders. Squadrons are divided into two or more flights, subdivided into sections. In such a unit a cadet has an opportunity to learn Army drill and discipline and may attain command experience under the supervision of CAP officers.

148. Do cadets wear uniforms?

Yes, when on duty. Civil Air Patrol Cadets wear regulation Army uniforms with removable CAPC insignia.

149. How can I join the CAPC?

Apply through your local CAP or CAPC unit. Applications are taken locally. If you do not know where it is located, ask your high-school principal or inquire at your nearest civilian airport or Aviation Cadet Examining Board. For further information write to Civil Air Patrol Headquarters, 500 Fifth Avenue, New York City.

Air Corps Enlisted Reserve

150. What is the Air Corps Enlisted Reserve?

The Air Corps Enlisted Reserve is the first step which young men of 17 can take toward winning the coveted wings of a bombardier, navigator, or pilot. If they pass the entrance

examinations, they are enlisted in the Army Air Force on a deferred basis and held in reserve to be called for active aviation cadet training after their 18th birthday.

151. What is the purpose of the Air Corps Enlisted Reserve?

The purpose of the Air Corps Enlisted Reserve is to enlist the young men of America with physical and mental qualifications for future service as commissioned bombardiers, navigators, or pilots in the Army Air Forces.

152. What are some of the requirements for the Air Corps Enlisted Reserve?

At least a 20/30 vision without glasses, correctible to 20/20 with glasses; normal color perception; normal hearing in each ear; be not less than 60 nor more than 76 inches in height (fighter pilots 64–70 inches) and weight not less than 105 nor more than 200 pounds (fighter pilots 114–160). You must also have been a citizen of the United States for 10 years or more.

You Work With Real Planes as Civil Air Patrol Cadets



153. What must I do to join the Air Corps Enlisted Reserve?

You must obtain an application blank, three letters of recommendation from reliable people who have known you and your family for some period of time, an official copy of your birth or baptismal certificate, and written consent of your parents or guardian (to be filled out in triplicate parental consent forms obtained from the Aviation Cadet Examining Board). These papers are then sent to your Aviation Cadet Examining Board.

154. What are the educational requirements to enter the Air Corps Enlisted Reserve?

There are no educational requirements. However, the Aviation Cadet Examining Board gives a mental examination which consists of about 270 multiple-choice, short-answer questions to determine your aptitude and suitability for air crew training as a pilot, bombardier, or navigator. Should you fail this mental examination you are permitted to take another form of the examination 30 days later.

155. What happens after I pass the mental examination?

You will be given a thorough physical examination and then a personal examination by the Board.

156. Will I receive a pair of wings?

Yes. When you pass all three examinations you will be sworn in and given a pair of miniature "Silver Wings." You will be an inactive member of the Army Air Forces and may continue your education or civilian pursuits until after your 18th birthday when you will be called to active cadet training.

157. What happens if I am still in school?

You may, at the time of enlistment, have the option of designating the month between your 18th birthday and 6 months thereafter in which you want to be called to active duty. If, upon reaching the age of 18, you are in college or high school, your call to duty may be deferred upon your request until the end of the current semester, provided that it is completed not later than 6 months after your 18th birthday.

158. What should I do as a member of the Air Corps Enlisted Reserve while still in school?

Join the local unit of the CAPC: get all the mathematics, physics, and preflight training possible; keep in top-notch physical condition.

Aviation Cadets

159. What is the purpose of the AAF Aviation Cadet Program?

The Aviation Cadet Program is designed to attract and train top-flight young men who have the physical and mental equipment to become bombardiers, navigators, or pilots. As an aviation cadet you will receive constant personal attention. There is no "mass instruction" for fliers. The main purpose of the course is to make every man a master at his job; to make him completely self-reliant so that he automatically does the right thing—the safe thing—in combat. While the Aviation Cadet Program is carried out to develop individual leadership, it also stresses teamwork. Cadets learn to work together as a closely knit unit. Cadets learn that each man is a specialist in his own field and respect him as such.

160. How can I be sure to get the air crew job I will do best?

One of the most important parts of the Aviation Cadet Program is classification.

Nothing is left to chance in arriving at the decision as to whether a man is to be a bombardier, navigator, or pilot. Individual traits are carefully recorded so that the men can concentrate on the subjects they will be most likely to need after formal classification. Each man **MUST** be exactly right for the job he has to do. Therefore, both his own preferences and his natural aptitudes are taken into account. In the AAF there is no such thing as a navigator who would make a better bombardier or a pilot who would make a better navigator. The tests prove where each man will excel and he is then trained in the work for which he is inherently fitted and which he will do best.

161. How can I be sure I will react correctly when in combat?

Cadet training makes a real perfectionist out of every man who wins his wings. He is trained so thoroughly that he can handle emergencies, no matter what the distractions. Instructors at training fields are fliers of long standing and are able to point out and explain technical difficulties that may arise. Many of the instructors are men who have seen active combat service in this war and know the latest tactics of combat flying. From them cadets learn enemy maneuvers in detail. They learn the capabilities and weak spots of enemy planes. They learn just what to watch for in combat. Actual fighting conditions over Europe and the Pacific are thoroughly studied so that the enemy won't be able to pull any surprise on you. Fighting tactics are kept constantly up-to-date.

162. What will my rank be when I win my wings?

When you win your wings you will either be commissioned a second lieutenant or appointed a flight officer in the United States Army Air Forces. You will have every opportunity to go further than that. There are

many majors and colonels in the AAF who are still in their early twenties! There is plenty of room at the top for young men in the AAF. The sky is the limit!

163. Why is the bombardier so important?

The whole striking power of the AAF, as far as destructive power is concerned, is carried at the tips of the bombardier's fingers. He is the fellow sitting up in the glassed-in "greenhouse" who directs his fortress above the target and releases his bombs with such split-second timing as to insure their finding the exact mark. He is the trigger man—the captain of the team while the plane is over the target. It has been said that the bombardier is the deadliest man of the crew.

164. Why is the navigator so important?

The navigator has one of the biggest jobs on a bomber. The "little tin guy," as he is called, has to get our bombers there and bring them back—over land, water, through rain, hail, fog, or starless night. His nerves seem to be made of steel, his mind works like a compass. No bombing raid could be a success if he were not along with his octant, his dividers and compasses, his maps, charts, and logs. The navigator is on duty every instant of the trip. Sitting at his little table, crouching in the greenhouse next to the bombardier, or manning one of the .50 caliber machine guns—he's *got* to be good!

165. Why is the pilot so important?

The pilot is what every air-minded young man thinks he wants to be. He is in charge of the crew in a bomber. Yet, the pilot is really no more important than any other member of the crew. It is up to him to cooperate with navigator, bombardier, and gunners if the trip is to be a success. It calls for hard work, intense concentration, and perfect coordination to make the grade as a

pilot. The pilot gets a longer training course than the bombardier or navigator because he has to have much more actual flight experience.

166. I am too young to enlist. How can I prepare for the job of bombardier, navigator, or pilot?

By studying High-School Victory Corps courses and by joining the Civil Air Patrol Cadet Training. When you are 17, go to the nearest Aviation Cadet Examining Board and see if you can qualify for membership in the Air Corps Enlisted Reserve.

Aviation Cadet Training

167. What is the purpose of the Aviation Cadet Program of the United States Army Air Corps?

The purpose of the Aviation Cadet Program is to find the highest type men for air crew training. It is designed to find young men physically and mentally capable of becoming bombardiers, navigators, and pilots.

168. Is it true that Aviation Cadets now get college training?

Yes. After 5 weeks' basic training you will be assigned to one of America's finest colleges or universities. You will have 5 months of college life on the campus. You will study geography, English, history, mathematics, and physics. You will receive basic military indoctrination and instruction in Civil Air Regulations. You will also receive 10 hours of flight training in cooperation with the local Civil Aeronautics authorities.

169. What happens at the classification center?

After completion of your preaviation cadet work at college, you are appointed as an aviation cadet and sent to a classification center. You will be put through psychological and aptitude tests that tell whether you have the in-

herent qualifications to become a bombardier, navigator, or pilot. Of course the results of these tests are not the only determining factors that classify you. Your tests actually begin back in your basic training period, continue through college until you are finally classified as either a bombardier, navigator, or pilot and are sent to flying school.

170. If I qualify as a bombardier, what is my program?

You will receive 27 weeks of highly concentrated instruction. You will have 9 weeks of preflight training, 12 weeks of specialized training with a great deal of actual practice in planes, and, finally, you will spend 6 weeks at gunnery school.

171. What is included in the preflight course for bombardiers?

Courses to orientate the bombardier in military life; classes on the physics and chemistry of bombs; study of the effects of altitude, speed, and wind on bombs. This is a general ground and physical training course.

172. What happens during the 12 weeks' training?

This period is one of swift, exciting progress. From theories on paper the bombardier next gets a chance to prove he has learned the fundamentals of bombing. In a "high chair," 12 feet above the classroom floor, actual bombing conditions are simulated and he learns to hit a target (called a bug) that moves, giving the same effect the bombardier would have if he were in a plane in a cross wind. It is his job to drop a plumb bob directly onto the target. During this period of training, too, the bombardier is first introduced to the bombsight. He not only learns that he must guard this secret mechanism with his life, but he also learns how to operate it and repair it in case of emergency. After 3 weeks of ground work the bombardier starts actual flying practice. First on "dry runs" in which no bombs drop but the stu-

dent lines up the target and later on actual bombing practice with life-sized targets marked out on the field below. The men learn bombing tactics for low-, medium-, and high-altitude attacks. They are flying day and night, in good weather and bad. Every minute is full of flying and flight talk. It is easy to see the progress made during this training. And there is a pair of bomber wings for reward.

173. What happens at gunnery school?

The bombardier spends 6 weeks at gunnery school, learning first to recognize all planes flying in this war and learning where their firing power is located. There is plenty of practice with the movie trainer, a device that shows enemy planes diving almost out of the screen, with all the real sound effects. The students "shoot" at the planes as they seem to swoop past and a ringing bell tells whether it is a hit or a miss. Gunnery school starts men out with shotguns on a skeet range. Then comes machine gun practice with a swiftly moving target on railroad tracks. At last there is actual flight practice, machine gunning a trailing target following another plane. During the courses of study, students learn exactly how their guns are made, how they may jam, and how to repair them quickly.

174. Does the bombardier get combat duty after gunnery training?

Not immediately. The bombardier is sent to a tactical base for final instructions in combat work. This is all secret work, the most important of all training. At any time, however, he will receive orders to fly to a coastal base for the trip overseas. And the BIG JOB has begun!

175. How long does it take to become a navigator?

Navigation is a very specialized study that requires 33 weeks of training. Eighteen weeks

of this are devoted to special navigation subjects. The four basic types of navigation are thoroughly taught—pilotage, radio, dead reckoning, and celestial. Nine weeks are spent in preflight before getting into pure navigation. And the course ends up with 6 weeks of gunnery. Contrary to popular belief, the navigator has to fight, too. He mans one of the guns in a bomber during an emergency.

176. What does a navigator go through in preflight training?

The navigator gets about the same preflight training as a pilot or bombardier with the academic work placing more emphasis on mathematics and other subjects necessary in the study of navigation. He is taught Morse code, air and ground forces tactics, physics, meteorology, photography, maps, charts, communication procedure, cryptography, and target identification. During this time, too, the navigator gets training in chemical warfare and in the use of gas masks.

177. What does the navigator study in his 18 weeks' course?

Here is where the navigator really gets down to business. Every hour of the day is packed with study, learning all the theories of navigation, learning how to use instruments, learning to use the sun for finding directions. And at night the navigator spends hours under the stars, learning to know each one, learning how to find directions by methods as old as the Phoenicians used in their tiny sailing vessels. Part of the navigator's training is spent in a Navi-trainer, a classroom machine that simulates all conditions of air navigation and the student learns to plot his course strictly by use of instruments. Finally, the navigator gets 100 hours' practice in the air, plotting courses to objectives, learning how to get to a spot within a small radius of space and within 2 minutes of the exact time planned. No wonder the rest of the crew speak of the navigator as being



In the "Greenhouse"



Navigator Getting There "Zero Zero"

Flying the Course on the Ground . . . Link Trainer



the "brains of the outfit!" By the end of the course the successful navigator is getting there "Zero Zero." This means navigating through hundreds of thousands of miles of space, cloud rack, wind and weather, and hitting a dime-sized objective "on the button" at the precise instant you predicted you would. When you are that good, you get your navigator's wings!

178. What does a navigator do at gunnery school?

Because a navigator often mans a machine gun in a bomber, he must take the same gunnery course as bombardiers do. A navigator's job isn't just map and chart work at a desk in a bomber; he gets a chance to do plenty of real fighting, too.

179. Does a navigator go into combat duty at once?

Like the rest of the air crew, the navigator goes to a tactical base for final instructions before leaving for overseas duty.

180. How long does it take to become a pilot?

A pilot spends 9 weeks each at preflight, primary, basic, and advanced training—a total of 36 weeks to win his wings.

181. What does a pilot get in preflight?

In preflight training the stress is on athletics and military and academic work. There is a thorough body-building routine balanced by practical studies. These studies include mathematics, physics, code, maps, charts, aerial photos, identification and tactical functions of aircraft, military law, defense against chemical attack.

182. What does a pilot get in primary training?

Most important to the cadet are the 60 to 65 actual flying hours he gets in this 9-week

period. He gets fundamentals of flying, navigation, night flying, and instrument flying (in the link trainer). During this period he makes his first solo. He learns to handle his controls in all phases of flying and even gets "stunt" acrobatics.

183. What is covered in basic training?

During the 70 hours of flying the student gets bigger, heavier, faster planes to fly in basic training. He flies night and day, learning instrument flying, team flights, formation work. He learns to do more complicated tricks with his plane and learns to handle it competently in any weather. Now he is taking cross-country flights, learning the actions of air currents over all kinds of terrain.

184. What does the pilot get in advanced training?

For the last 9 weeks the pilot gets 80 hours of flying and 22 hours of gunnery. He practices in either a single-engine fighter or a big twin-engine bomber, depending on which plane the pilot shows the greatest aptitude. He flies real combat maneuvers. He learns to use his oxygen equipment when flying over 10,000 feet. He learns bail-out procedure and the use of the parachute. And he keeps working constantly at the technique of instrument flying, pilotage, acrobatics. And he flies day and night. He has really earned those wings when he finishes his 36 weeks' training!

185. What are the qualifications for aviation cadets?

Qualifications necessary for appointment are:

(1) An applicant for appointment as aviation cadet for air crew training must have reached his 18th birthday but not have reached his 27th birthday.

(2) An applicant for enlistment as an aviation cadet in the Air Corps Enlisted Reserve

must have reached his 17th birthday. Written consent of parents for enlistment is required.

(3) An applicant may be single or married.

(4) An applicant must have been a citizen of the United States for at least 10 years prior to date of application.

(5) Birth certificate or other properly authenticated proof of date of birth or citizenship must be presented. In the case of an applicant who is a native of one of the Allied Nations and is now a resident of this country, of good reputation and unquestioned loyalty to the United States, a request for waiver of the 10-year citizenship requirement may be submitted to the Adjutant General.

(6) An applicant for voluntary induction or for enlistment in the Air Corps Enlisted Reserve must present, as evidence of his good character, three letters of recommendation from reputable citizens who are not related to him and to whom the applicant is well known.

(7) An aviation cadet in training for duty as a flying officer is required to meet special physical standards. His color perception must be perfectly normal; vision 20/30, correctible to 20/20 with glasses. Hearing must be normal in each ear. A flying officer, except fighter pilot, is required to be not less than 60 nor more than 76 inches in height and must weigh not more than 160 and not less than 114 pounds. Before an aviation cadet is eligible to enter upon any flying training he must pass a complete physical examination for flying duty.

186. What are the educational requirements necessary to get into the aviation cadet program?

You do not have to be a college graduate to be an aviation cadet. You do not even need a high-school diploma. However, the more education you have, the greater will be your chances for success in the tests and in completing the training. The Aviation Cadet Examining Board gives a general mental test

which consists of about 270 multiple-choice, short-answer type questions. Very few of them have any connection with actual school work. And if you do not pass the first time, you can take another form of the examination 30 days later.

187. After passing the mental tests, what happens?

After passing the mental examination satisfactorily, you are given a thorough physical examination and a personal examination by the Aviation Cadet Board.

188. What are the pay and special benefits while in training?

Pay of an applicant accepted for Aviation Cadet Training through voluntary induction while undergoing preparatory or preflight training will be that of a private, \$50 per month. After appointment as an aviation cadet, and while in training in that grade, you receive base pay of \$75 per month and a ration allowance of \$1 per day. You are also furnished quarters, medical care, uniforms, and other clothing equipment. You are given a \$10,000 Government life insurance policy at Government expense while undergoing actual flying training. After your graduation, and while on flying status, this life insurance policy must be continued at your own expense. An enlisted man of the Army of the United States, transferred in grade to the Air Corps, unassigned, for Aviation Cadet Air Crew Training will receive the pay and allowances of his enlisted grade while undergoing the preflight training prior to his appointment as an aviation cadet.

189. What rank does the aviation cadet receive upon completion of the course?

On the completion of the primary basic and advanced flight training the aviation cadet receives either a second lieutenancy or a flight officer's rank, depending upon how well he has accomplished his job. They are

both flying officers' positions, both pay the same—\$246 a month plus subsistence and rental allowance, and both carry uniform allowance of \$250. The pay of a cadet with dependents may be as high as \$327 a month.

Other Opportunities in the Army Air Forces

190. If I do not qualify as a bombardier, navigator, or pilot, are there other officer opportunities in the Army Air Forces?

Yes. You can become an armament officer, communication officer, engineering officer, meteorology officer, or photography officer.

191. What are the duties of an armament officer?

He supervises maintenance of armament equipment on tactical planes assigned to his unit commanding officers; has planes at all times ready to perform tactical missions under full military load; is responsible for familiarization with the latest developments of aircraft armament, equipment, and technique, together with proper performance of service types of armament equipment.

192. What does a communications officer do?

He supervises maintenance and operation of radio, telegraph, teletype, and directional equipment, including radio compasses, which are assigned to his unit and is in command of the personnel who check and repair all communications equipment on the planes in his unit.

193. What does an engineering officer do?

He is responsible for all mechanical details of the planes on the ground; is an engineering foreman; and commands crew chiefs, aerial engineers, inspectors, and mechanics.

194. What about the meteorology officer's job?

He analyzes weather conditions; forecasts conditions along flight routes; keeps the navigator informed at all times; and is in command of weather observers in his unit.

195. What are the duties of the photograph officer?

He takes charge of the operations of mobile and fixed photographic laboratories and equipment assigned to his unit; commands the aerial photographers and repairmen; and is responsible for the accurate photographic mapping of strategic areas.

196. Does an enlisted man in the A. A. F. have an opportunity to fly?

Yes. He has an opportunity to fly as a staff sergeant pilot, aerial engineer, radio operator, aerial gunner, or glider pilot.

197. What is the staff sergeant pilot's job?

Bomber and reconnaissance pilots' chief function is to fly so as to permit the most expeditious performance of the plane crew's tactical mission; fighter pilots fly single- and twin-engine planes, fire planes' guns, navigate, communicate by radio with the ground and other aircraft in flight by performing the major functions of destroying the enemy bombardment planes and escorting bombing missions.

198. What are an aerial engineer's duties?

He flies with multi-engine bomber and transport planes; makes repairs and adjustments during flight; substitutes for or helps co-pilot in operation of flaps, raising and lowering landing gear, and other mechanical operations; serves as aerial gunner during attack.

199. What does the radio operator do?

The radio operator serves as the connecting link between the plane and the ground stations: relays by radio necessary data to the operating personnel on the ground; receives weather and other information for the plane crew; operates radio sets aboard the plane; and handles the direction finders, radio compass, and other radio-active instruments; serves as gunner during attack.

200. What is the aerial gunner's job?

Aerial gunners man the guns in bombing planes; inform pilots of approaching enemy planes; as aerial sharpshooters, protect bombers from attacks by enemy fighter planes and destroy enemy planes with a minimum amount of ammunition.

201. When are glider pilots used?

Glider pilots are used on two major types of military missions: (1) Transporting men and matériel from one point to another, and (2) landing troops in surprise attacks on enemy positions.

202. What opportunities are there for enlisted men—ground technicians?

Enlisted men in the A. A. F. may become aircraft armorers, aircraft machinists, aircraft metal workers, aircraft welders, aircraft mechanics, teletype repairmen, Link trainer instructors, parachute riggers, photographers, radio operators and mechanics, weather observers, Air Forces administrative clerks, Air Forces supply and technical clerks.

203. What is the nature of an aircraft armorer's duties?

He inspects, adjusts, and repairs armament equipment, aerial machine guns, cannons, synchronizers, gunsights, gun cameras, bomb racks, and other armament mechanisms.

204. What does an aircraft machinist do?

An aircraft machinist is responsible for general machine work and heat treating, involving the repair of air base equipment, including tools and remaking certain broken and worn parts and adjusting by graining and finishing metal surfaces to close tolerances.

205. What work does the aircraft metal worker perform?

He cuts and forms sheet metal used in the assembly and repair of aircraft parts, fittings, and structural parts, using hand tools and metal working machines.

206. What does the aircraft welder do?

Aircraft welders fuse metal parts by means of electric welding apparatus or an oxyacetylene torch to fabricate or repair broken or cracked metal airplane parts.

207. What is the aircraft mechanic's job?

The aircraft mechanic checks the condition of airplanes and their engines; makes repairs, replacements, and adjustments; inspects critical parts of the craft, such as electrical and control systems, undercarriage, brakes, motors, and propellers.

208. What are the duties of the teletype repairman?

Teletype repairmen inspect, service, and repair automatic telegraphic typewriters (machines similar to typewriters, used to send and receive telegraphic messages).

209. What do link trainer instructors teach?

Link trainer instructors teach instrument flying (blind flying) to pilot students through use of a Link trainer (a device re-

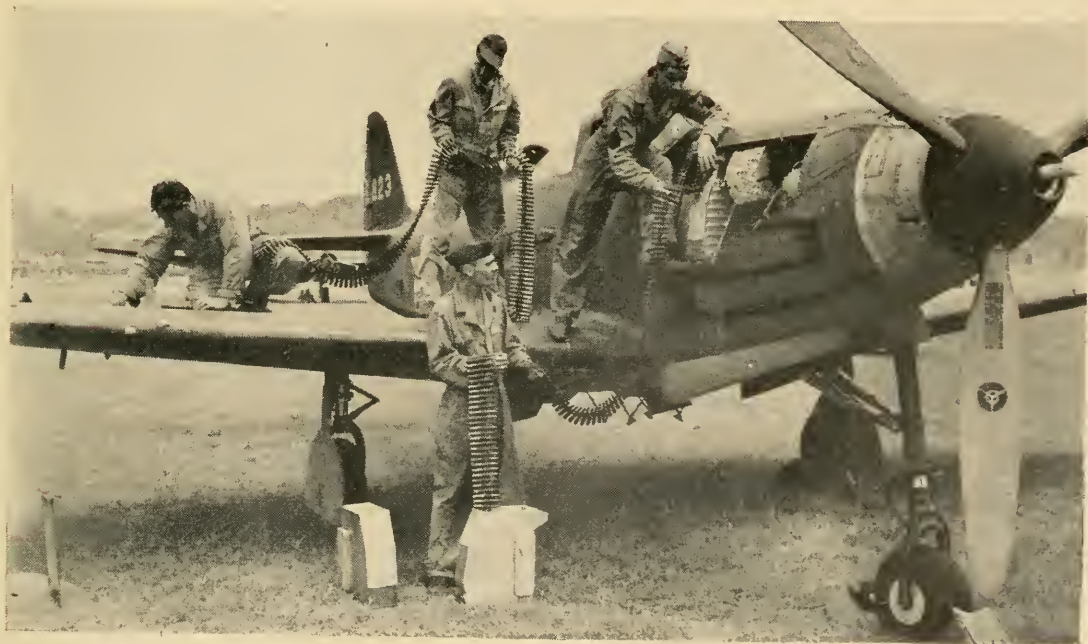


Plotting a Cross-Country Flight



Meteorology Officer

Aircraft Armors



sembling a plane, complete with instrument panel, in which student is confronted with the problems of blind flying).

210. What does the parachute rigger do?

Parachute riggers repack parachutes that have been opened in use, or unopened ones that are repacked in the interest of safety; sew and patch, by hand and machine, damaged parachute canopies; replace defective shrouds; repair harnesses; and splice connections between shrouds and harness.

211. What is the photographer's job?

The photographer makes photographs from planes in flight; assembles mosaic maps; prepares chemical solutions for developing film and printing pictures; enlarges, reduces, and intensifies picture prints.

212. What about radio operators and mechanics?

They operate and adjust all transmitter and receiver equipment; repair defective radios; test circuits and tubes; isolate defects; and repair and replace defective parts.

213. What is the weather observer's job?

Weather observers analyze weather conditions; observe instruments recording wind velocities, changes in temperature, humidity, barometric pressure, amount of rainfall, and other conditions; prepare weather maps and reports.

214. What kind of work is done by air forces administrative clerks?

They make up and file reports; tabulate and post data in record books and on bulletin boards; take telephone calls; give information to callers; type; operate office machines, such as duplicating machine.

215. What are the duties of air forces supply and technical clerks?

They receive, store, and issue equipment, material, merchandise, or tools; check incoming orders against items listed on requisitions or invoices; count, grade, or weigh the articles; take periodic inventory, making up necessary reports; type; operate office machines, such as bookkeeping and duplicating machines.

SERVICE IN THE ARMED FORCES

Part 4.

UNITED STATES NAVY

Recruit Training in the Navy

216. Where do I report if I am selected from the Navy group?

You will be forwarded to a Navy Recruiting Office and sent from there to a Naval Training Station.

217. How do I get from the train to the naval training station (N. T. S.)?

You will be met by someone from the N. T. S. and taken out, usually in a bus.

218. Suppose I arrive at the N. T. S. around 11 a. m., am I started through the receiving unit immediately?

Usually not. You are generally given an early lunch and then started through the receiving unit.

219. Suppose I arrive in the late afternoon?

You are furnished with bedding and towel and held over to start through the receiving unit in the morning.

220. What happens in the receiving unit?

As soon as you get in you will fill out some papers; one is the packing slip which is used

Information about the WAVES has not been included since the minimum age for enlistment of girls is 20 years, and since this pamphlet is designed for youth of high-school age. For information about the WAVES get the following booklet from your nearest recruiting office: *The Story of You in Navy Blue*. U. S. Navy Department, Washington, D. C. 1943. 49 p.

to address the label on the box which will contain your civilian clothes; another is an information card on which you fill in the following information: Name, date sworn in, place sworn in, date of birth, age, place of birth, name of next kin, relationship, address of next kin, and religion. A third is a requisition slip for a mattress cover, a pillow cover, a toilet kit, and a towel; these articles are then issued you.

221. What happens to me then?

You then strip to the waist and have a number and the company number painted on your chest. If your number is 57, for example, you will use those spaces and hooks numbered 57 during the remainder of your examination.

222. After I get the number what happens?

You will first of all get a complete dental examination. Then in a room where the floor is marked off into squares you find square 57 and after stripping off your civilian clothes you will put them in a cardboard box (this box is held for several days in the event you are not accepted); a venereal examination and a urinalysis are next on the list. After taking a shower you are given tests for color vision, blood typing, visual acuity, hearing, hernia, nose, throat, skin, glands, operations, respiratory tract, heart, blood pressure, spine and joints, injuries, neuro-psychiatric symptoms, height, and weight; you are also X-rayed.

223. When do I get my uniform?

If you pass your physical, you are issued your clothing, otherwise you are held over for a period of from 2 days to 2 weeks.

224. If I pass my physical, how am I issued my uniforms and equipment?

From the physical examination room you are then sent to try on hats for hat size and an expert fits you for correct shoe size. Next you get nonsized articles, such as: Comb, soap, brush, and towels. Then you get the shoes and other parts of your uniforms as you pass down the line; these you put in your mattress cover. As soon as you are outfitted you will go to a row of bins into which you empty your mattress cover and try on your uniforms for size. A Navy man checks you to see that you get the right fit. You end up by putting on your work clothes.

225. What precaution is taken against losing my equipment?

As soon as you are outfitted you go to a stenciling room. Here you dump your equipment in a bin on a stenciling table and a Navy man stencils each piece of equipment.

226. Where do I go from here?

You then go to the waiting room where you are taken by the company commander to your barracks.

227. How long will I be at the naval training station?

Seven weeks for recruit basic training.

228. Am I in detention or in quarantine?

No. Since each company does its training as a unit, there is no need for detention. If a contagious disease breaks out, the entire company is in quarantine.

229. Will I get a chance to attend church services?

You will be required to attend church services of your faith every Sunday during recruit training.

230. How long shall I be in the N. T. S. before I am tested and classified?

You will usually be in the station from 5 to 9 days before this takes place.

231. When I am tested, what tests shall I get?

You will receive the following pencil and paper tests: General Classification Test, Arithmetic Reasoning, Mechanical Aptitude, Mechanical Knowledge, Electrical Knowledge, and a Reading Test. These are all given in one day.

232. What else do I do on that same day?

A motion picture will be run off which shows all the ratings. You will also fill out an information sheet which asks for: Marital status, number of dependents, birthplaces of father and mother, number of years completed in school, specialized training, algebra, geometry, trigonometry, physics, typing, shorthand, main occupation, employer's name, kind of business, wages received, duties performed, machines operated, hobbies and sports, talent for public entertainment, highest position of leadership, and language fluency.

233. What can I do to help me during this day?

Since Navy tests are machine scored, it will be of help to know how to use the answer sheets. Take the examinations seriously since these scores are all recorded on your "Q" card (U. S. Navy Enlisted Personnel Qualifications Card). Also, know where your parents were born and be sure to give all information asked for.

234. Am I interviewed and classified immediately?

No. You are next taken in groups to a preinterview lecture where the importance of the interview is stressed and special schools, such as pre-radio and sound, are explained.

235. Do I have an individual interview?

Yes. This will last from 15 to 30 minutes.

236. How important is the interview?

The interview is especially important because the interviewer, who is well trained for his work, makes recommendations for officer material, rates, special schools, and general service. When it is realized that from 80 to 90 percent of the men are getting to places where they are basically qualified, based on first and second recommendations, it can be seen that the interview is important. These recommendations are based on what the man has to offer and what the Navy has to offer.

237. How can I be sure that the interviewer classifies me correctly?

All cards are rechecked by a committee to guard against wrongly classifying a man. Then, too, counselors are assigned to the outgoing units for men who desire a change or have questions to ask regarding their assignment.

238. When do I get my shots?

During the first 3 weeks.

239. Do they hurt?

Not much more than a pin prick, though you may get a slight fever after one of the antityphoid series of three shots.

240. Do I get a chance to take out insurance and sign up for allotments?

Yes. This is done early in the training period. The subjects are explained, questions are answered, and then you may sign up. About 98 percent of the men take out insurance.

241. When do I get a furlough?

At the end of recruit training you get 9 days' leave.

242. What about passes during recruit training?

The different training stations have varying rules about passes.

243. What do I do during the 7 weeks of recruit training?

You will be given military drill, physical conditioning, rifle range work, Blue Jacket Manual study and discussion, simple knots, seamanship, war news discussion, swimming, small stores, gas chamber instruction, boat drill, night lookout training, marlinespike, first-aid lecture, and pistol firing.

244. What happens to me after recruit training?

You may be sent to the fleet, to a shore station, or to a service school.

245. What are my chances of getting officer training?

Your chances are excellent—it depends greatly upon yourself. It is possible to advance to officer status. The V-12 College Program is available to the enlisted man as is also the Naval Academy.

246. If I am sent to the fleet, shall I have an opportunity of going to a service school?

Yes. Men are sent to Service Schools directly from their ships and return to these ships upon completion of study.

247. What determines whether I go to a service school?

Much depends upon you, your conduct, education, ambition, aptitude, and adaptability.



There's Work To Be Done



Navy Cook, Second Class, Dishing Up the Peas

The Interview





Submarine

U. S. P. T. Boat on the Move





Lifeboat Practice

Landing Ship-Tank . . . Jaws Gape and Out Comes a Tank



248. What are some of the service schools open to the men direct from recruit training?

Service Schools which are open to you are: Armed Guards School; Electrical and Ordnance; Communications and Clerical; Metal Work; Woodworking; Machinists; Motor Machinists; Aviation: Machinist, Metalsmith, Ordnance, Radio, Motor Machinist; Cooks and Bakers; and Hospital Corpsman. Most of these are 16-week schools.

249. What is the armed guard service?

It is a branch of the Navy which serves aboard merchant ships. Its purpose is to defend these merchant ships against enemy action.

250. What type of training is given in the armed guard school?

Men at this school receive a gunnery training course which is one of the broadest in the Navy. For 1 month he works with revolvers, pistols, machine guns, and larger guns.

251. What service schools are open to Negro boys direct from recruit training?

The Navy has service schools at three locations for Negro trainees; they are located at Hampton Institute, Hampton, Va.; Camp Robert Smalls, Great Lakes, Ill.; and Naval Air Technical Training Center, Memphis, Tenn. The first two of these stations have excellent training schools in the following rates: Metal-smith; Ship Fitter; Electrical, Motor Machinists—both gas and Diesel; Carpenter; Coxswain; Gunnery; Cooks and Bakers; Hospital Corpsmen; Machinist; Quartermaster; Radio; Communication; Storekeeper; and Yeoman. At the latter station are aircraft schools which train men to be Aviation Ordnancemen; Aviation Metalsmiths; and Aviation Machinist's Mates.

252. How many branches of naval service are there for enlisted men?

There are seven branches of naval service for enlisted men comprising 172 different enlisted ratings (a rate or rating is an enlisted rank or status). The men who hold these ratings are known as petty officers.

253. What are the different classes of Navy ratings, according to the branches of service?

Seaman Branch: Boatswain's Mates; Turret Captains; Torpedoman's Mates; Gunner's Mates; Quartermasters; Signalmen; Fire Controlmen; Seamen.

Special Branch: Yeomen; Storekeepers; Pharmacist's Mates; Hospital Apprentices; Bandmaster; Musicians; Buglemasters; Buglers; Specialists (Physical Instructor, Classification Interviewer, Special Gunnery Instructor (Aviation), Operator (Electrical Accounting Machine), Mail, Ordnance Matériel Inspector, Photographic, Recruiter, Shore Patrol, Teacher, Transport Airman, Chaplain's Assistant).

Commissary Branch: Chief Commissary Steward; Ship's Cooks; Bakers.

Steward's Branch: Stewards; Cooks; Steward's Mates.

Artificer Branch: Electrician's Mates; Radiomen; Radio Technicians; Radarmen; Soundmen; Telegraphers; Carpenter's Mates; Patternmakers; Shipfitters; Printers, Painters.

Artificer Branch (Engine Room Force): Machinist's Mates; Motor Machinist's Mates; Water Tenders; Boilermakers; Metalsmiths; Molders; Firemen.

Aviation Branch: Aviation Pilots; Aviation Machinist's Mates; Aviation Electrician's Mates; Aviation Metalsmiths; Aviation Radiomen; Aviation Radio Technicians; Aerographer's Mates; Photographer's Mates; Aviation Ordnancemen; Parachute Riggers.

Seabees

254. What are the Seabees?

The Seabees are the Naval Construction Battalions. The name "Seabee" is derived from the initials C. B. (Construction Battalion).

255. What do the Seabees do?

The Seabees build the Navy's advance bases outside the continental limits of the United States. They construct air fields, docks, and other military installations.

Seabees are both builders and fighters. They are taught Marine combat tactics and are always ready to defend what they build.

256. What kind of training do Seabees receive?

First, 4 weeks in "boot camp," where their training is primarily military. At the end of this first month, recruits are assigned to Seabee battalions, and then receive an additional month of training. This latter preparation is primarily technical and is planned to fit each man better for the particular job he is expected to do.

At the completion of the combined 2 months' training period, Seabee battalions are assigned to Advance Base Depots where they receive further training, both military and technical, while awaiting overseas assignment.

257. Can I gain practical experience in the Seabees which will be useful to me after the war?

Yes; you will be working alongside of experienced craftsmen and you will learn a great deal from them about electricity, carpentry, Diesel engine operation, or any other of the 59 skilled trades represented in the average Seabee battalion. Most of these trades offer good paying jobs in civilian life.

258. Shall I have a chance for advancement in the Seabees?

Yes. The Seabees are a new and growing branch of the Navy. When you prove your ability you have a good chance of earning a specialist's rating.



Seabees Unloading Supplies for Base From an LCT Boat at a Point Along the Attu Island Shoreline

259. If I become an enlisted man in the Seabees can I ever become an officer?

Yes. You can qualify for Officers' Training under the Navy V-12 program. If you qualify, you will be sent for additional schooling and military training to one of the many colleges which have been selected by the Navy for this purpose.

260. How can I be assigned to the Seabees?

When you are called to your induction station for physical examination, you will be

given the opportunity to state your preference for the branch of military service you would like to enter.

You may stipulate "Seabees" but although your preference will be considered carefully it does not follow that you necessarily will be assigned to the organization you choose. In the opinion of the assigning officer you may be better qualified for another branch of the service or the branch you may have named may already have filled its quota. The final decision is in the hands of the assigning officer.

Ship Repair Units

261. What are ship repair units?

Ship repair units, or SRU's, are the repair

crews which serve on board repair ships, tenders, and floating dry docks, and overseas at advanced bases.

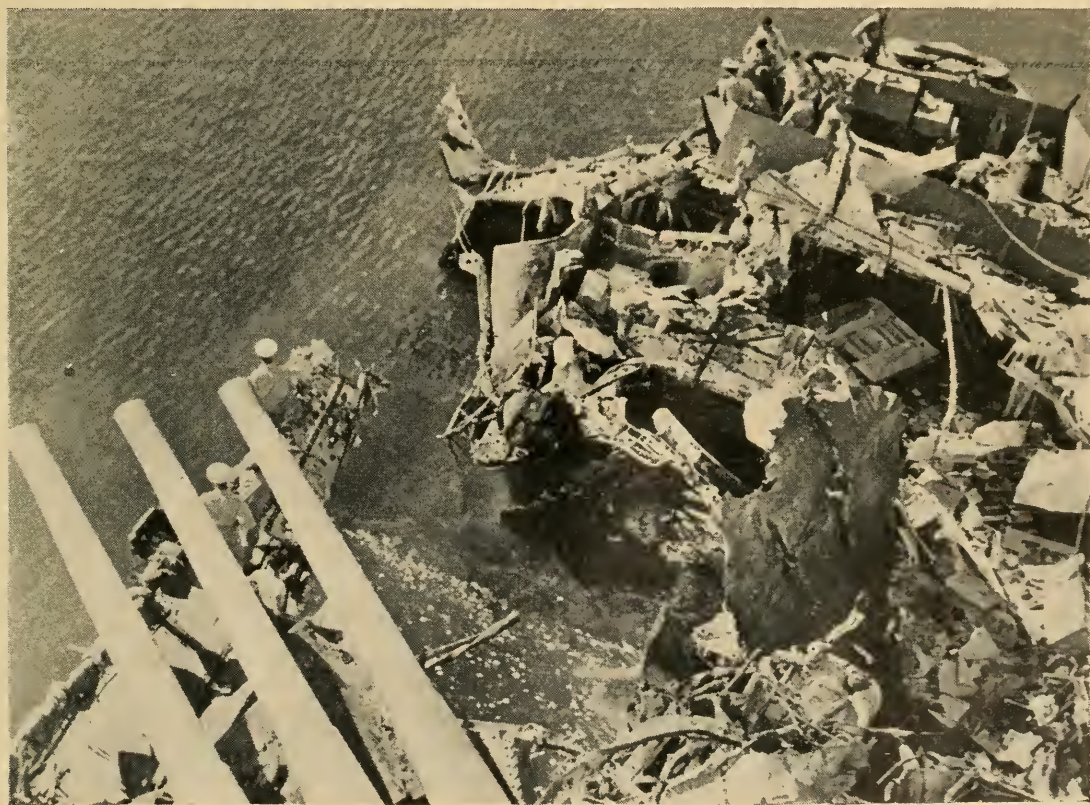
262. What are the jobs of the SRU's?

The SRU's keep the Fleet in fighting trim, making on-the-spot battle-damage repairs and maintaining intricate machinery in working (fighting) order. Hull, machinery, and electrical repairs to battleships, cruisers, destroyers, submarines, landing craft, and PT boats are among other jobs.

263. What kind of training do SRU's receive?

First, 4 weeks in "boot camp," where the training is primarily military. For the sec-

Salvage . . . This Twisted Mass of Wreckage Is a U. S. Navy Cruiser, Badly Damaged in Action, and Now Repaired



ond part of training SRU's are assigned to one of the great naval stations or navy yards in this country for further training in their specialties and for adaptation of their civilian skills to Navy use. For from 2 to 4 months they are trained right on the job, repairing damaged ships just as they will when assigned to a repair ship or an advanced base later on.

264. Can I gain practical experience in the SRU's which will be useful to me after the war?

Yes, you will be working alongside of experienced craftsmen and will learn a great deal from them. There are more than 60 civilian jobs represented in the various ship repair units, including electricians, carpenters, welders, shipfitters, machinists, pipefitters, radiomen, and metalsmiths. Most of these trades offer good paying jobs in civilian life.

265. Will I have a chance for advancement in the SRU's?

Yes. Ship Repair Units are increasing in the Navy. When you prove your ability you have a good chance of earning a specialist's rating.

266. If I become an enlisted man in the SRU's may I ever become an officer?

Yes. You may qualify for Officers' Training under the Navy's V-12 program. If you qualify, you will be sent for additional schooling and military training to one of the many colleges which have been selected by the Navy for this purpose.

267. How can I be assigned to the SRU's?

When you are called to your induction station for physical examination you will be given the opportunity to state your preference for the branch of military service you would like to enter.

You may stipulate the Navy but, although your preference will be considered carefully, it does not follow that you necessarily will be assigned to the organization you choose. In the opinion of the assigning officer you may be better qualified for another branch of the service or the branch you may have named may already have filled its quota. The final decision is in the hands of the assigning officer.

If entering the Navy, you may ask the selection officer at "boot camp" for assignment to the SRU's. As in the case of the assigning officer, his decision is based on your qualifications and the needs of the service.

Navy V-12 Program

268. What is the purpose of the Navy V-12 Program?

The Navy V-12 Program is designed to produce officers for the Navy, Marine Corps, and Coast Guard through the training of selected students and recent graduates of high schools and preparatory schools, college students, and enlisted men of the Navy, Marine Corps, and Coast Guard.

269. What are the entrance qualifications?

Qualifying tests for civilians are given periodically throughout the Nation. In order to be eligible to take the tests candidates are required to:

- (1) Be male citizens of the United States.
- (2) Have attained their 17th and not their 20th birthdays.
- (3) Be morally and physically qualified for this program, including minimum visual acuity of 18/20, correctible to 20/20.
- (4) Be unmarried and agree to remain unmarried until commissioned.
- (5) Evidence potential officer qualifications, including appearance and scholarship records.

(6) Meet educational requirements of one of the groups listed below:

(a) High-school and preparatory school graduates who will have attained their 17th and not their 20th birthdays, regardless of whether they are presently attending college.

(b) High school and preparatory school seniors who will have completed graduation requirements provided they will have attained their 17th and not their 20th birthdays by that date.

(c) Students who do not hold certificates of graduation from a secondary school, but who are continuing their education in an accredited college or university.

270. Where may I obtain a preliminary application form for the V-12 Program?

Preliminary application forms for the V-12 Program will be distributed through local high schools and colleges. Each applicant will be required to submit his form, properly filled out and certified by a high-school principal or college administrator, who will be directed to refuse to certify and thereby eliminate candidates who obviously are below physical standards or who show evidence of inadequate educational preparation.

271. What are "officer-like qualities"?

A successful candidate should possess the officer-like qualities of intelligence and mental alertness, moral courage, emotional stability, poise, and neatness of appearance. He should have the leadership ability to get along well with people by deserving and commanding the respect of seniors as well as subordinates. He should be unswerving in allegiance, and honest in all his relationships.

272. After I take the V-12 examination what happens to me?

Following the tests, successful candidates will be requested to report to the nearest

Office of Naval Officer Procurement at their own expense. In some sections of the country temporary branch Offices of Naval Officer Procurement will be set up for the purpose of interviewing candidates for the Navy V-12 Program. In each Office of Naval Officer Procurement final selection will be made by a selection committee after candidates have passed a thorough physical examination. *No waivers for any of the requirements of this Program will be granted. The selection committee's decision will be final.*

All men accepted for the V-12 Program will be enlisted or inducted into the Naval service and placed on inactive duty from which they will be ordered to active duty as Apprentice Seamen, U. S. Naval Reserve, and assigned to Navy V-12 units at colleges and universities under contract to the Navy.

273. What am I required to do while in high school if I pass all requirements and am accepted for V-12 training?

High-school students accepted for V-12 training will continue with their regular courses until they have completed graduation requirements.

274. What happens to me if I fail my physical examination?

If you fail the physical examination, you are not accepted for the V-12 Program and remain in civilian status. When you become 18 years of age, you become subject to Selective Service.

275. Who determines and on what basis is it decided what I shall take in the college program?

You may express a preliminary choice of courses of study, such as medicine, engineering, etc. Assignment and continuance in these courses will be based on the needs of the service and your demonstrated competence in the particular field.

276. Have I a choice as to what school I would like to attend?

Successful candidates will be permitted to indicate their preference for assignment to colleges on the Navy list. The Navy will respect the preference of the student as far as possible, but no guarantee can be made that a student's request for a given college will be granted. They may also express their preference for the branch of service, Navy, Marine Corps, or Coast Guard, at the time. Their assignment will be based on demonstrated ability and counseling during the first 2 (semesters) terms.

277. What is furnished me while in training?

V-12 students are placed on active duty as Apprentice Seamen with full pay in addition to quarters, subsistence, uniforms, and college tuition.

278. What are the different training programs, the length of each, and the determining factors as to the period of training?

The length of course for students will vary. Students trained for general duty will receive $1\frac{1}{3}$ years of study. This training will consist of four 16-week terms of college work. Chaplains, medical and dental officers will have twelve 16-week terms; engineering specialists, eight 16-week terms; engineering for general duty, six 16-week terms.

Courses for the first two terms will be similar for all students, except premedical and predental, and will emphasize fundamental college work in mathematics, science, English, history, engineering drawing, and physical training. Premedical and predental students will substitute chemistry and foreign language for English and history. All students in the V-12 Program will receive instructions in Naval Organization and General Naval Orientation. At the conclusion of their college

work students will take specialized Naval training leading to commissions.

279. What happens to me should I fail to meet the required standards while in training?

Navy students who fall below the required officer standards educationally, physically, or in conduct or aptitude for the Naval Service will be ordered to a Naval Training Station for general duty in enlisted status or will be discharged at the discretion of the Navy Department.

280. Will I be able to join a college fraternity, take part in sports, and otherwise partake in college life?

During their college training Navy V-12 students may take part in all college athletics and other campus activities provided such activities do not interfere with their prescribed hours for courses of study. Any student who is able to meet the requirements of the curricula, which include compulsory physical drills, swimming, and setting-up exercises, and is able to devote additional time to participation in the college athletics or other extracurricular activities will be permitted to do so. Navy V-12 students, at their own personal expense, may also join all previously established college organizations and fraternities which are available to all students on the same terms. Students under the V-12 Program will be required to maintain the Navy's standards of discipline although military activities will be kept at a minimum and subordinated to academic training.

281. What physical and military training is required?

Emphasis on military drill will be kept at a minimum; V-12 students will participate, however, in a physical training program, elementary military drill, prescribed swimming courses, and a daily 20-minute morning exercise period. Some substitutions will be

allowed, at the discretion of the commanding officer, in the case of those students who voluntarily participate in intercollegiate athletics.

282. If I took the qualifying test on some previous occasion but failed to be included in the quota, will I be eligible for selection in the next quota or must I take the examination again?

Passing a V-12 qualifying test for one quota does not constitute eligibility for selection for a succeeding quota. Applicants who wish to be considered for a future quota must qualify under the test for that particular class.

Navy V-5 Program.

283. What is the Navy V-5 Program?

The Navy V-5 Program is designed to train qualified American youths as naval aviators. Eligible candidates between the ages of 18 and 27 are enlisted as aviation cadets, V-5, U. S. N. R., or aviation cadets, SV-5, U. S. N. R. Eligible 17-year-old applicants are enlisted as apprentice seamen, V-5, U. S. N. R., to be transferred to aviation cadet, V-5, upon reaching their 18th birthdays and or completing such training as may be prescribed. Qualified 18-year-old youth may ask for voluntary induction through Selective Service for assignment to the Navy and subsequent enlistment as apprentice seamen, class SV-5. Candidates who successfully complete flight training in the V-5 program are designated as naval aviators and commissioned as ensigns, U. S. N. R., or as second lieutenants, U. S. M. C. R.

284. What are the enlistment requirements?

The requirements for enlistment as aviation cadet, V-5, or aviation cadet, SV-5, are:

(1) Be a male citizen of the United States. Foreign-born citizens who have been naturalized less than 10 years will not be enlisted in Class V-5, except upon the recommendation of the Officer-in-Charge of a Naval Aviation Cadet Selection Board and approval by the Bureau of Naval Personnel in each individual case.

(2) Be not less than 18 years of age and have not reached their 27th birthday at the time of enlistment.

(3) Agree to remain on active duty for 4 years, including period undergoing training as aviation cadet, unless released sooner by the Navy Department.

(4) Be unmarried and agree to remain unmarried until completion of flight training and acceptance of commission as ensign, U. S. Naval Reserve, or second lieutenant, U. S. Marine Corps Reserve, unless released sooner by the Navy Department.

(5) Be a graduate of an accredited high school or secondary school.

(6) Pass flight physical examination given by a naval flight examiner. The following general physical standards must be met:

(a) Height—minimum: 5 feet 4 inches; maximum: 6 feet 4 inches.

(b) Weight—in proportion to height; at least 115 pounds.

(c) Eyes—perfect normal 20/20 vision.

(d) Teeth—18 sound, vital teeth with at least 2 molars in functional occlusion and not more than 4 incisors missing which are satisfactorily replaced.

(e) Feet—in good condition.

(f) Hearing—whispered voice at 15 feet, both ears.

(g) Color perception—ability to distinguish primary colors clearly.

(h) Chest expansion—at least 2 inches.

(i) Blood pressure—within normal limits.

(j) Pulse rate—normal.

(7) Be mentally, morally, and psychologically qualified for training as an aviation cadet and for commission in the Naval Reserve or Marine Corps Reserve.

(8) Pass prescribed mental tests. In addition to meeting the above requirements, apprentice seamen, V-5, must also:

(9) Have successfully completed or be currently enrolled as a senior in an accredited high or secondary school.

(10) Be in the upper half of high-school or secondary school class or in the upper $\frac{2}{3}$ of college class.

(11) Be recommended as to moral character and quality of leadership by an anonymous board of no fewer than three members of the faculty.

(12) Have consent of parents or guardian to enlist as apprentice seaman, V-5.

285. May a high-school pupil enroll in the program? If so, what are the requirements?

A 17-year-old high-school pupil currently enrolled in the last half of his senior year in a course of study which meets college-entrance requirements and qualified according to the above standards may be enrolled as an apprentice seaman, V-5.

286. What am I required to do while I am in high school as an apprentice seaman, V-5, U. S. N. R., for naval aviation flight training?

A 17-year-old high-school pupil enrolled as an apprentice seaman, V-5, is required to graduate from high school. Boys now in a sophomore or junior status who anticipate, on reaching the age of 17, enlisting as apprentice seamen, V-5, when eligible, should enroll in as many mathematical, scientific, and aeronautical courses as are available at the school they attend.

287. Do I wear a uniform, get pay, attend drill while in apprentice seaman, V-5 classification?

Apprentice seamen, V-5, pending their graduation from high school or secondary school are in an inactive duty status and do not wear uniforms, receive pay, or attend drill.

288. When do I become eligible to transfer to aviation cadet, V-5?

Apprentice seamen, V-5, will be transferred to aviation cadet, V-5, for flight training in the Naval Reserve upon reaching their 18th birthday and after such preliminary training or duty as may be prescribed.

289. What happens if I fail my physical or in some other way become ineligible for transfer to aviation cadet, V-5?

Apprentice seamen, V-5, who for any reason become ineligible for transfer to aviation cadet, V-5, for flight training will be immediately changed in classification to Class V-6. U. S. N. R., and will be ordered to active duty for recruit training and further assignment to general service in the Navy.

290. What are the requirements for apprentice seamen, class SV-5?

The requirements for voluntary induction and enlistment as apprentice seamen, Class SV-5, are the same as those for apprentice seamen, Class V-5, except as follows:

Candidates must have reached their 18th but not their 19th birthday at the time the Letter of Directed Assignment is issued and must have graduated or be currently enrolled in the last semester (trimester or quarter) of their senior or last year at an accredited high or secondary school with expectation of graduation at the end of the then current semester.

Apprentice seamen, Class SV-5, candidates will be processed in the Offices of Naval Officer-

Procurement in the same manner as are aviation cadet, SV-5, candidates. Qualified candidates will be issued Letters of Directed Assignment.

After volunteering for induction at their local Selective Service Boards and their assignment to the Navy at the nearest Armed Forces Recruiting and Induction Stations, apprentice seamen, Class SV-5, candidates will be inducted at Navy Recruiting Stations into the Navy as apprentice seamen, USN-I. After induction, candidates will volunteer for and be enlisted as apprentice seamen, Class SV-5, U. S. N. R., immediately following which they will be placed on inactive duty.

291. How long is the training?

Aviation cadets, V-5, are in ground school and flight training approximately 16 months before receiving their commissions. After receiving their commissions, naval aviators usually undergo two additional months of operational training.

292. Of what does the training consist and where are the schools located?

There are six stages in the training of naval aviators: Flight preparatory, CAA-War Training Service (flight training in light planes), preflight training, primary flight training, intermediate flight training, and operational training. The program consists of ground school studies, flight training, and physical training. There are numerous schools for the instruction of naval aviators located throughout the United States.

293. What pay and other allowances do I get while in training?

The pay of an aviator cadet, V-5, while on active duty undergoing training is at the rate of \$75 per month. While serving on active duty undergoing training as an aviation cadet, V-5, he is furnished with necessary items of uniform equipment and is issued Govern-

ment life insurance in the amount of \$10,000, the premiums on which are paid by the Government.

294. What commission and pay do I get when I complete training?

Upon completion of intermediate flight training an aviation cadet, V-5, is commissioned ensign, U. S. N. R., or second lieutenant, U. S. M. C. R. The base pay, flight pay, subsistence, and rental allowance for these ranks amount to approximately \$391 a month or more, depending on marital status. Upon first assignment to active duty as a commissioned officer after completion of flight training and designation as a naval aviator, he is paid in addition a cash uniform allowance of \$150, after which he is required to purchase uniform equipment as may be necessary from his own funds.

295. What happens if I "wash out"?

If an aviation cadet, V-5, "washes out," he may be selected for:

- (1) A commission (ground duties).
- (2) Further officer training (V-12, operations officer, gunnery officer, etc.).
- (3) Enlisted ratings (aviation machinist's mate, aviation radioman, aerographer's mate, aviation metalsmith, aviation ordnanceman, link trainer operator, parachute rigger, photographer, or other specialist rating).

United States Naval Academy

296. What is the purpose of the United States Naval Academy?

The sole purpose of the United States Naval Academy is to train successful candidates to become capable line officers in the United States Navy.

297. How are appointments made?

Five midshipmen may be appointed by each Senator, Representative, Delegate in Congress, and the Vice President. The President ap-

points 5 for the District of Columbia. He also appoints annually, from the United States at large, 25 men who are sons of officers and of enlisted men of the Regular Army, Navy, and Marine Corps. Ten appointments are made from Puerto Rico and the Philippine Islands. Twenty appointments annually are made from among honor graduates of educational institutions which are designated as "honor schools" by the War and Navy Departments, and from the members of the Naval Reserve Officers' Training Corps. Not more than 20 persons from the American Republics may receive instruction at the same time and not more than 3 from the same Republic may receive instruction at the same time. (These appointments are made for instruction only; appointees do not

enter United States Navy.) One appointment is made from the Canal Zone. Forty persons are appointed by the President from the United States at large from among the sons of officers, soldiers, sailors, and marines of the Army, Navy, and Marine Corps of the United States who were killed in action or have died of wounds or injuries received or disease contracted or preexisting injury or disease aggravated in active service during the World War I.

298. What are the qualifications for appointment?

All candidates are required to be: (1) Citizens of the United States, (2) between 17 and 20 years of age (inclusive), (3) unmarried now or previously, (4) able to pass

Presentation of Colors



a rigid physical examination, and (5) able to meet educational and mental requirements.

299. What subjects must be presented as required units?

English—3 units; mathematics— $3\frac{1}{2}$ units (at least $1\frac{1}{2}$ must be in algebra, 1 in plane geometry, and $\frac{1}{2}$ in solid geometry or trigonometry; units in excess of $3\frac{1}{2}$ count as optional); history—1 unit of United States history; physics—1 unit; chemistry—1 unit. The other $5\frac{1}{2}$ units of optional subjects are chosen from those listed on pages 29 and 30 in *Regulations Governing the Admission of Candidates into the United States Naval Academy as Midshipmen and Sample Examination Papers*, June 1943.

300. May enlisted men enter Annapolis?

To give deserving enlisted men an opportunity to try for training at the Naval Academy, the Naval Academy Preparatory School is maintained at the Naval Training Station,

Bainbridge, Md. The aim of the school is to prepare enlisted men who have completed 9 months of naval service for April competitive entrance examinations.

301. May enlisted members of the Naval Reserve and the Marine Corps Reserve apply for appointments?

Yes. Each year 100 enlisted men of each branch may be selected by competitive examination for appointment.

302. What is the pay of a midshipman?

His pay is \$780 a year.

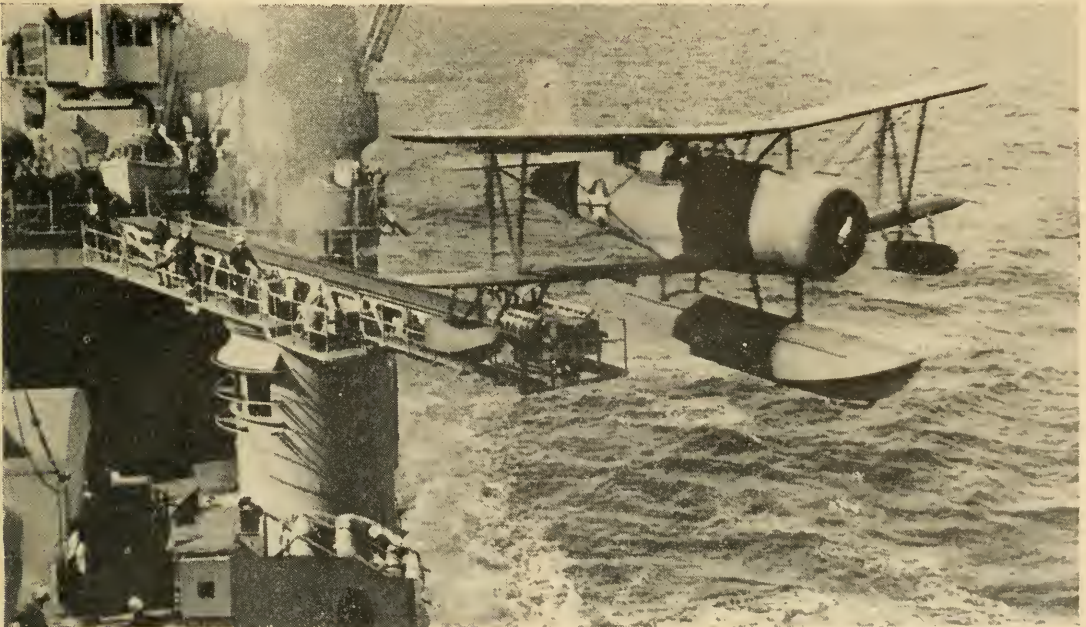
303. What commissions do graduates get?

Graduates are commissioned as probationary ensigns in the Navy or second lieutenants in the Marine Corps.

304. How long is the course?

Three years (for the duration only).

Off She Goes . . . A U. S. Navy OSC is Catapulted Off a Heavy Cruiser



SERVICE IN THE ARMED FORCES

Part 5.

UNITED STATES COAST GUARD

Coast Guard Recruit Training

305. How long will I be at this station?

For 3 months.

306. What happens to me from the time I arrive at the receiving unit until I am ready to start my training?

During the 2 days which are necessary to go through the receiving process you will do the following: From the gate you will go to the personnel office where you will fill out a personnel record. From here you will go to a desk where you fill out a religious card. Next you will be given either a paper or canvas bag into which you will put such items as your wallet, your watch, and other articles which you desire to keep at the station. This bag is then put in a locker. You next undress and get a pair of shorts, a pair of socks, and a towel. Your civilian clothing will be put into a box and sent home C. O. D. After taking a shower you are photographed, X-rayed, and given smallpox and tetanus shots, your teeth are examined, and if necessary, you are given a dental appointment for the next morning. After having been passed on by the doctor you receive a clothing slip and get outfitted.

Information about the SPARS has not been included since the minimum age for enlistment of girls is 20 years, and since this pamphlet is designed for youth of high-school age. For information about the SPARS get the following leaflets from your nearest recruiting office: *A Message to You . . . from the Coast Guard SPARS*. U. S. Coast Guard, Washington, D. C., 1943. *Facts About . . . SPARS*. U. S. Coast Guard, Washington, D. C., 1943. 21 p.

Your clothing is tried on for size and is checked by a Coast Guard man. This procedure takes practically all of one day. From here you go to a receiving barracks where you are assigned to a bunk, stencil your clothing, and get your personal gear from the locker. From here you are sent to your company commander.

307. What happens while in the 5-day indoctrination school?

This schedule is followed at Manhattan Beach, N. Y.:

First Day (Third Day in Camp) :

- 0730—Company Commander and Platoon Leaders arrange company into platoon formation.
- 0830—Platoon Leaders arrange platoon into marching formation according to height.
- 0900—Company Commander and Platoon Leaders arrange men and bunks according to platoons.
- 1000—Talk by Company Commander followed by talks by the Platoon Leaders to their individual platoons.
- 1100—Family allotments to be explained and made out. This procedure is conducted by members of the pay office.
- 1230—Noon chow.
- 1330—Social Study Tests in Sea Wall Classrooms.
- 1445—Mathematic Tests in the Sea Wall Classrooms.
- 1630—Company returns to barracks and changes into uniform of the day for evening chow.

Second Day:

- 0730—Inspection of men and barracks by the Company Commander and Platoon Leaders.
- 0830—Mechanical Aptitude Tests in Sea Wall Classroom.



U. S. Coast Guardsmen Unload the Supplies That Back Up the Infantry in the Invasion of Sicily



Underneath Dropping Bombs

Swinging Out



Lifeboat Drill Practice



- 1030—Battalion Yeoman to explain and instruct in the filling out of insurance applications.
- 1215—Secure insurance and prepare men for chow muster.
- 1230—Noon chow.
- 1330—Introductory talk by Battalion Commander.
- 1400—War bond sales conducted by Company Commander and Platoon Leaders.
- 1530—Hair cuts.
- 1730—Muster for evening chow.

Third Day:

- 0730—Inspection of the men and barracks by the Company Commander and Platoon Leaders.
- 0830—Prepare for sea bag inspection to be made by Battalion Commander.
- 0930—Sea bag inspection by Battalion Commander.
- 1000—Rerolling and typing of gear for second sea bag inspection to be made by Company Commander.
- 1100—Packing of sea bags under supervision of Platoon Leaders.
- 1230—Noon chow.
- 1330—Infantry drill—under the supervision of Chief to teach the men posture and position of attention.
- 1430—Movies:
 - Recreation Hall for companies in cottages. Barracks for companies quartered in same.
 - "The Salute."
 - "Safeguarding Military Information."
 - "Dangerous Comment."
 - "Coast Guard Song."
 - "Carry the Fight."
 - "All Hands."
 - "Always Ready."
- 1730—Evening Chow.

Fourth Day:

- 0730—Movies in the recreation hall:
 - Prelude to War. Parts 1, 2, 3, and 4.
- 1145—Company returns to barracks and practices musters.
- 1230—Noon chow.
- 1330—Infantry drill—under the supervision of Chief.
- 1430—Lecture in the recreation hall or barracks and movie on "Sex Hygiene" by Medical Department.
- 1500—Lecture by Chaplain.
- 1530—Talk by Regimental Adjutant.
- 1600—Infantry drill by Company Commander and Platoon Leaders.
- 1700—Prepare for evening chow.
- 1730—Evening chow.

Fifth Day:

- 0730—Inspection of men and barracks by Company Commander and Platoon Leaders.
- 0830—Movies:
 - Recreation hall for companies in cottages. Barracks for companies quartered in same.
 - Prelude to War. Parts 5, 6, 7, 8, 9, and 10.
- 1200—Prepare for noon chow.
- 1230—Noon chow.
- 1330—Infantry drill—under the supervision of Chief.
- 1430—Movies:
 - Recreation hall for companies in cottages. Barracks for companies quartered in same.
 - "Menace of the Rising Sun."
 - "The Battle."
 - "Now You're Talking."
 - "Combat Counter Intelligence."
 - "Keep it Clean."
- 1630—Infantry drill by Company Commander and Platoon Leaders.
- 1730—Evening chow.

308. When shall I be interviewed?

During the fifth and sixth week of recruit training you will have a personal interview.

309. When do I start training?

During the second week you will begin training according to the following schedule:

- Boat Drill—50 minutes per day.
- Gymnasium Class—50 minutes per day.
- Supervised Study Period.
- Free Period—50 minutes per day.
- Infantry Drill—50 minutes per day.
- Signaling—50 minutes per day.
- C. O. T. P. Subjects—50 minutes per day.
- Seamanship—100 minutes per day. (Included in this class are the following: Jack-Stay, Recruit Sail Loft, Main Sail Loft, Classes at Barracks.)

Ordnance-Gunnery: Chemical Warfare.

This schedule is followed 3 months by the recruits.

310. How long am I kept in quarantine?

During the first 3 weeks you are kept in quarantine. Then a week-end pass is given.



Coast Guardsmen Picking Up the Survivors From a Nazi U-Boat Just Before It Sank



Coast Guard "Sea Bird" Protection for a Merchantman

omb-Pocked Waters Off Sicily as Seen from Deck of a Coast Guard Manned Transport



311. How long before I become a second-class seaman?

It depends on you since you must learn the requirements for the first-class seaman's examination.

312. How soon may I apply for a rating?

You may not apply for a rating until you have become a first-class seaman.

313. How can I get into the various types of schools?

Under normal conditions you will not leave recruit training for any school nor go direct from here to a school. If men are needed for certain types of work or schools your Company Commander will tell your company and you may apply for admittance then; otherwise you must wait until you get to your next station.

314. What are some of the schools?

Radioman; Pharmacist's Mate; Yeoman, Storekeepers; Motor Machinist's Mate; Electrician's Mate; Fireman; Quartermasters; Signalmen; Carpenter's Mate; Gunner's Mate; Machinist's Mate; Water Tenders; Soundman; Cooks and Bakers; Port Security; Radio Engineering and Maintenance; Radio Sound Matériel; Aviation Pilot; Sound Motion Picture; Optical; Deep Sea Diving; Gyroscope; and Aviation Machinist's Mate. Information concerning the location of the schools and the length of courses will be given you while at the recruit training station.

315. Is it possible to go into the V-12 Program?

Yes. Enlisted men are selected according to their aptitudes and abilities.

316. What are the requirements for the Coast Guard Academy Preparatory School?

You must be an enlisted man; unmarried; a high-school graduate with one credit each in

algebra and plane geometry, three credits in English, one credit in physics with laboratory or chemistry with laboratory. The physical standards are the same as for regular cadets. Ages—17 to 21, provided 22d birthday is not reached before May 1 of the year of examination.

317. What are the subjects to be covered at the Coast Guard Academy Preparatory School during the two terms of 16 weeks each of the school year?

<i>First Term:</i>	<i>Hours per week</i>
Intermediate algebra.....	4
Geometry, plane and solid.....	4
English.....	3
Science.....	4
Military science.....	3
Physical education.....	5
Total.....	23

<i>Second Term:</i>	
Advanced algebra.....	4
Trigonometry.....	4
English.....	3
Science.....	4
Military science.....	3
Physical education.....	5
Total.....	23

318. What happens at the end of the 3 months' recruit training?

You will be sent to a land station, to a ship, or to a special school.

319. Do you have church services?

Provisions are made for religious services for members of the Protestant, Jewish, and Roman Catholic faiths.

United States Coast Guard Academy

320. What is the purpose of the United States Coast Guard Academy?

The Coast Guard Academy is maintained for the professional education and training of

young men who are candidates for commissions as officers in the United States Coast Guard.

321. Upon what is admission to the Academy based?

Admission to the Academy is based on a Nation-wide competitive examination usually held on the second Wednesday in May. Candidates for this examination are designated by Coast Guard Headquarters in Washington. More detailed information may be obtained by writing to the Commandant of the Coast Guard, Washington, D. C.

322. What are the general requirements for eligibility?

1. A candidate must be a citizen of the United States and must be not less than 17 years of age nor more than 22 years of age on May 1 of the calendar year in which he is appointed a cadet. If the candidate has not reached his 17th birthday, or if he will have reached his 22d birthday on or before May 1 of the calendar year in which he seeks to be appointed a cadet, he will be ineligible for appointment. If under 21 years of age he will be required to furnish the written consent of parent or guardian before admission to the Coast Guard Academy.

2. He must satisfy the Commandant of the Coast Guard as to his good moral character and standing in the community.

3. He must satisfy the Commandant of the Coast Guard that he has had sufficient educational opportunities to justify his being designated for examination.

4. He must be unmarried. Any cadet who shall marry, or who shall be found to be married before his final graduation, shall be required to resign and, failing to do so, shall be dismissed from the service.

5. He must be physically sound and not less than 5 feet 6 inches in height.

6. No person who has been dismissed or compelled to resign from the United States

Military Academy, the United States Naval Academy, or the United States Coast Guard Academy for improper conduct is eligible for appointment as a cadet in the Coast Guard.

323. What should a candidate do before filing an application?

Before filing an application or preparing for an examination a candidate should be examined thoroughly to determine whether or not he can meet physical requirements. By such a preliminary examination any serious physical disqualification would be revealed and the candidate spared the expense and trouble of filing an application.

324. What is the course of procedure for candidates?

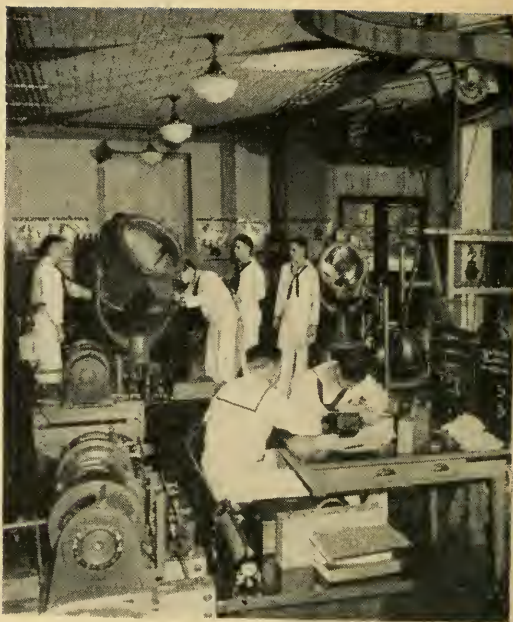
1. A young man who is able to meet the requirements for eligibility as set forth herein, and who is interested in becoming a cadet in the Coast Guard should fill out the preliminary application blank obtained from the Commandant, United States Coast Guard, Washington, D. C. If it appears from the information contained on the preliminary application that he meets the requirements, he will be sent an application blank and school certificate form which he should execute carefully in accordance with instructions, and return with three letters of recommendation and an official birth certificate. His application and accompanying papers will be carefully examined at Coast Guard Headquarters, and if it appears, on the face of these papers, that he is suitable material for examination for appointment, his application will be approved and notice sent him accordingly.

2. Applications and supporting papers must be postmarked at least 4 weeks in advance of the examination date. Applications postmarked after the above date will not be considered.

3. A candidate who is in attendance at a school at the time his application is filed should have the school forward to Coast Guard Head-

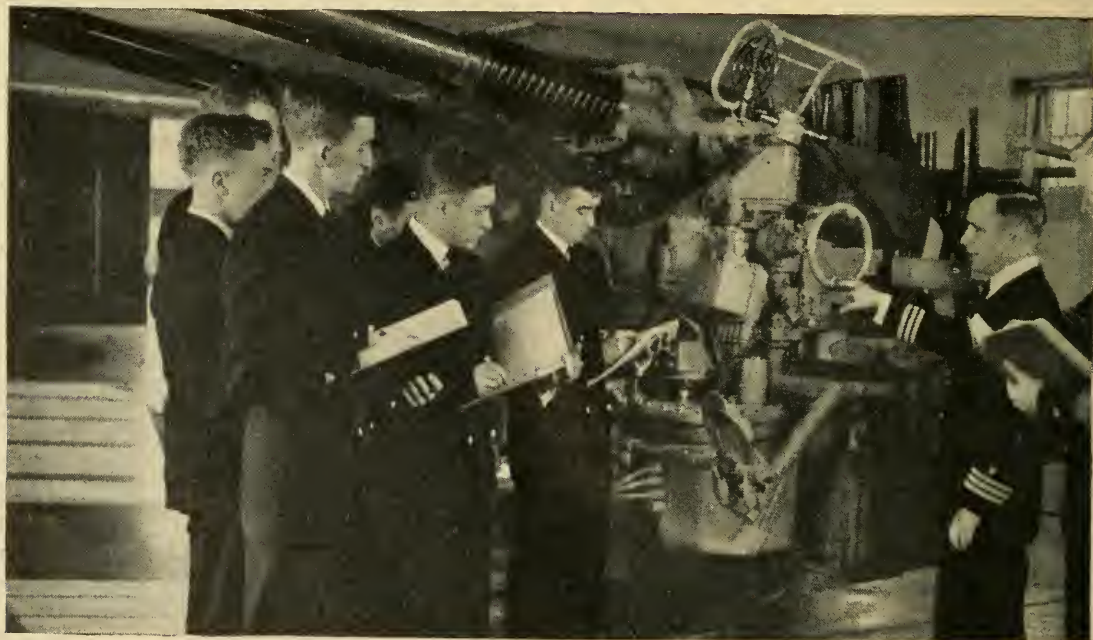


Small Boat Practice



Communications Class

Ordnance Instruction



quarters a complete transcript of his work upon completion of the school year.

325. What subjects must be presented as required units?

Mathematics—3½ units; English—3 units; Physics—1 unit; Chemistry—1 unit. Further evidence of adequate preparation amounting to 6½ units of optional subjects is required; while solid geometry is not required, it is recommended that a candidate include it in his preparation.

326. Where is the entrance examination given?

A candidate who has been accepted will be designated to report for examination and will be advised of the time and place he should report. All expenses must be borne by himself.

327. What examinations are given?

On the first day a 3½-hour examination in mathematics and a 3-hour examination in English will be given. A mark of at least 70 percent must be attained in each. On the second day the examiners will talk to the candidates in personal conferences and each candidate will be checked upon such items as appearance, personality, neatness, cleanliness, athletic ability, and leadership. About one month after the completion of the mental examination, physical examinations will be given only to those candidates who have passed the mental examination and are in line for appointment.

328. How many appointments are made each year?

The number of appointments to be made each year depends upon the needs of the

Service at the time. Candidates who are considered eligible for appointment and who have passed the required physical examination will receive appointments as cadets in the United States Coast Guard and will be sent instructions to report to the Coast Guard Academy generally during the third week in July.

329. What is taken during the preliminary 6 weeks' term?

Trigonometry, algebra, shop work, seamanship, drawing, and drills along with week-end cruises in sailing vessels and patrol boats.

330. What is the pay of the cadet?

At present they receive \$780 per annum and commutation for one ration per day. Pay commences upon the date the oath of office as a cadet is taken.

331. Do cadets specialize for deck or engineer officers?

No. All cadets take the same course of instruction.

332. What commission is given to a graduate?

Upon graduation from the Coast Guard Academy cadets are awarded diplomas and are eligible to be commissioned by the President to fill vacancies in the grade of ensign in the Coast Guard.

333. How long is the course?

Three years (for the duration only).

SERVICE IN THE ARMED FORCES

Part 6.

UNITED STATES MARINE CORPS

334. What is the minimum age for enlistment in the Marine Corps?

The minimum age is 17, although young men of 17 are normally placed on inactive duty for an indefinite period of time. This varies from several days to a longer term. Any man, however, may be ordered to active duty immediately.

335. What is the minimum time between the pre-induction physical examination and the time I report for boot training?

Normally 21 days. However, you may, if you desire, request immediate induction.

336. If I enlist, what is the length of service?

You enlist for the duration of the war plus 6 months.

337. How long is recruit training?

Recruit training is approximately 2 months in length.

Information about the United States Marine Corps Women's Reserve has not been included since the minimum age for enlistment of girls is 20 years, and since this pamphlet is designed for youth of high-school age. For information about the United States Marine Corps Women's Reserve get the following pamphlet from your nearest recruiting office. United States Marine Corps Women's Reserve, U. S. Marine Corps, Washington, D. C. August 19, 1943. 32 p.

338. What happens during recruit training?

During the first few days you obtain your uniform, toilet articles, see the doctor and dentist, get your shots, and are given a classification test. After this you will learn the military movements performed in the Marine Corps and become familiar with the service rifles and pistols, machine guns, mortars, anti-tank guns, hand grenades, bayonets, and other military weapons.

339. What are the seven branches of marine service open to enlisted men?

The seven branches are: Aviation, line, mess, musician, paymaster, quartermaster, and signal and radio.

340. What determines which branch an enlisted man is assigned to?

Although no promise of assignment to any special duty can be given since all men are required to enlist for general service, it is true that upon completion of required recruit training the enlisted man may request assignment to one of the branches mentioned in question 339. All assignments depend upon the aptitudes and abilities of the applicant and upon the availability of vacancies.

Aviation: After completing a course of recruit training those wishing aviation duty may



Route Step—March

A Hard Day at the Tubs in “Boot” Camp



submit an official request to the Commandant for transfer to an aviation unit. This is generally approved if there is a vacancy at the time; however, in being assigned to aviation, no promise is made that flight training will be included. Promotion depends upon abilities of the man.

Line Branch: Those who perform general duties on ship and shore are in the line branch. A private may be advanced successively to private first class, corporal, sergeant, platoon sergeant, gunnery sergeant, first sergeant and sergeant major as a result of display of definite qualities of leadership and military ability.

Mess Branch: In furnishing food for a large number of men, two phases of work are necessary—handling food and materials and supervising such work. A private who is interested in handling food may advance to assistant cook (private first class), to field cook (corporal), and to chief cook (sergeant), depending upon his proved abilities and previous experience in preparing food. A private who is interested in supervisory work may advance to mess corporal, mess sergeant, staff sergeant, technical sergeant, and master technical sergeant. The master technical sergeant must be able to select or supervise the purchase of food or distribute it when it is necessary to supply a large force in the field.

Musician Branch: The United States Marine Band at Washington, D. C., consists of 65 musicians. Applicants, who must be high-school graduates between 18 and 25 years of age, are required to pass the usual physical examination. They are also required to pass a musical examination given by the leader. They must be able to play one band instrument and one stringed orchestral instrument. Post or regimental bands are also maintained at large posts. Assignments are determined by vacancies and musical qualifications of candidates.

Paymaster Branch: Disbursement of funds is handled through the office of the paymaster. Men who have an interest in and show aptitudes and abilities for work performed in this branch have the opportunity of progressing from private first class, corporal, sergeant, staff sergeant, and technical sergeant to paymaster sergeant. The paymaster sergeant must be qualified to assist the paymaster in disbursing funds and be familiar with all accounts rendered by that office.



This "Captive" Parachute Is Used To Train Paramarines How To Guide the Shroud Lines of the 'Chute

Quartermaster Branch: The Quartermaster Department takes care of supplying and transporting food, clothing, and equipment to the Marines. The beginner in the Quartermaster Department, private first class, learns the service system of providing food, supplies, and clothing. As he learns, he may be promoted

to corporal, sergeant, staff sergeant, supply or technical sergeant, and finally to quartermaster sergeant or master technical sergeant.

Signal and Radio Branch: The maintenance and operation of communications in the Marine Corps is delegated to the signal and radio branch. In order to be promoted to private first class a man must have a fundamental knowledge of radio or telephony. As he learns more about the details of the naval communications system, has an advanced knowledge of radio, telephony, or clerical duties relating to communications, and becomes proficient in the maintenance and operation of the equipment he must work with (radio and telephone), he may be promoted to corporal, sergeant, staff sergeant, technical sergeant, and finally, to the rank of master technical sergeant which is an expert craftsman's rank.

341. What are some of the schools in which an enlisted man may receive advanced training?

Some of the service schools open to an enlisted man after recruit training are: Field telephone, radio operator, fire control, optical, radio material, photography, automatic electric aerographer, signal corps, clerical, motor transport, quartermaster, engineer, field music, camouflage, ordnance, parachute rigger, armorer, and cooks and bakers.

342. What correspondence courses are offered by the Marine Corps institute free of charge?

Automobile; aviation; civil engineering; commercial, included are bookkeeping, business correspondence, shorthand, and type-writing; *diesel engines; drafting; electricity; grade school and high school.* High-school

Amphibious Tractors Approaching Land From Landing Barges



subjects include algebra, arithmetic, civics, English grammar and composition, economics, geography, plane and solid geometry, United States history, ancient and medieval history, modern European history, literature, physics, physiology, and plane trigonometry; *modern languages*, courses in Spanish and French are offered; *preparatory*, there are special preparatory courses for men seeking to enter the Naval Academy or to become warrant officers or second lieutenants; *radio*; *refrigeration*; and *welding* and *shopwork*.

343. Where does the recruit go after basic training?

Normally a recruit goes either to service schools or to an advanced training base.

344. What academy may enlisted men of the Marine Corps enter?

Enlisted men of the Marine Corps have the opportunity of being selected annually through examination to attend the United States Naval Academy.

SERVICE IN THE ARMED FORCES

Part 7.

UNITED STATES MERCHANT MARINE*

Maritime Service

345. What are the purposes of the United States Maritime Service?

The purposes of the service are: (1) To assist in the maintenance of a trained and efficient Merchant Marine personnel by providing an adequate training system and contributing benefits for seamen of good character who serve aboard vessels on the high seas or the Great Lakes; and (2) to make available to inexperienced young men of high caliber a suitable course of instruction in subjects pertaining to the deck, engineer, and steward departments aboard American merchant ships.

346. What are the qualifications necessary for apprentice seamen in the Maritime Service?

An applicant must be a male citizen of the United States, not less than 17 years 6 months and not more than 35 years of age. Applicants are accepted between the ages of 35 and 50 years of age for training for service in the steward's department only. Applicants must be in good health and of good moral character. All applicants must agree to serve in a training status from 3 to 6 months, according to the needs of the service, and must agree

to serve in the Merchant Marine for a period of at least 1 year.

347. How does one apply for this training?

Application for enrollment should be made on the prescribed Maritime Service form and forwarded for approval to the Commandant, Maritime Service, War Shipping Administration, Washington, D. C., or to the nearest Maritime Service enrolling officer.

348. Who furnishes transportation to the training stations?

The Government furnishes transportation from the place of enrollment to the training station.

349. What happens to a man upon reporting to a training station?

Upon arrival at the training station a man receives a physical examination, is fingerprinted and photographed, and receives his first issue of uniform clothing. His civilian clothing may be sent home C. O. D., or he may turn them over to the station for donation to the Red Cross. He is assigned to quarters in the barracks where he is in quarantine for 21 days. During the first few days at the station he stencils his name in his uniform clothing, receives vaccinations and inoculations, and is given indoctrination lectures by instructors and the station chaplain.

*While the U. S. Merchant Marine is technically not a part of the armed forces, information concerning it is included because service in the U. S. Merchant Marine is so closely related to service in the armed forces.

350. When are aptitude tests given?

Early in the preliminary period each man is given a battery of aptitude tests to determine for which department he is best suited. Those men desiring to attend specialists schools, such



**Lifeboat Drill Aboard the Training Ship,
*Joseph Conrad***

as the Radio School or Hospital Corps—Junior Assistant Purser School, are given additional tests at this time. Men must be assigned to the three basic departments of the Merchant Marine in accordance with the needs of that industry and the particular aptitude of the individual. A limited number of superior men may be selected for the United States Merchant Marine Cadet Corps.

351. What is the preliminary training period?

The first 5 weeks of training is known as the preliminary training period. During this

period he is given such instruction as will familiarize him with the things that every seaman should know, regardless of what branch or department of the ship he will be in. This includes safety seamanship, handling small boats under oars and sails, simple knots and splices, emergency drills, physical development and swimming, hygiene and first aid, and customs and traditions of the sea.

352. How long are the courses?

The deck, engineer, and steward's department courses are from 3 to 6 months in length, depending upon the needs of the Merchant Marine for men. Hospital Corps—Junior Assistant Purser and Radio Operator's courses are approximately 6 months in length.

353. What is meant by branch training?

Upon completion of the preliminary period, assignments to specialist schools and departmental branches are made. During the branch training period emphasis is placed on training men to fill the particular jobs of the branch or department to which they have been assigned. For deck and enginemen, the branch training period is approximately 8 weeks in length, during which time specialized instruction in seamanship and engineering subjects, respectively, is given. For steward's mates the length of the branch training period is set at 4 weeks, and 10 weeks for cooks and bakers.

354. Do apprentice seamen stay at the training station during the entire time?

Steward's mates and cooks and bakers do. The deck and engine trainees are sent aboard a training ship for approximately 2 of the 8 weeks of branch training. Upon completion of the branch training period trainees are certified and receive their seamen's papers. Should the demands of shipping permit,

trainees may receive a week's leave after receiving seamen's papers.

355. Do the apprentice seamen get paid?

Apprentice seamen receive \$50 a month during training.

356. What positions may the apprentice seaman obtain?

Members of the deck department normally are employed as ordinary seamen, able seamen, boatswains, and quartermasters. Members of the engineering department normally get jobs as wipers, firemen, oilers, and water tenders. Those taking the steward's course can qualify as cooks, bakers, stewards, or waiters, depending upon the specialized training taken. Those entering the radio school become radio operators, if they are able to pass the examination.

357. What is furnished an enrollee?

An enrollee is furnished uniforms, quarters,

subsistence, medical and dental care, and books.

358. What are some of the extension courses available free of charge to regular enrollees?

The following is a list of extension courses available: Navigation; elementary marine engineering; marine engineering; internal-combustion engines; fireroom subjects; engine room subjects; auxiliary subjects; refrigeration; welding; practical radio engineering; elementary electrical engineering; algebra; elements of electricity; principles of radio; mechanical drawing and reading shop blueprints; elementary school subjects; secondary school subjects; good English; secondary school mathematics; seamanship; ocean navigation; motorboat navigation; Diesel engines; and marine steam engineering.

Gyrocompass and Steering Class



United States Merchant Marine Cadet Corps

359. What is the purpose of the Cadet Corps?

The basic purpose of the United States Merchant Marine Cadet Corps is to provide young Americans with the education and training that will fit them in the best possible manner for their careers as Merchant Marine officers and deck and engineer officers.

360. What is the age requirement?

Young men between the ages of 17 years 6 months and 23 years of age are eligible.

361. Is entrance based upon appointment by Congressmen?

No. Young men are drawn from all over the country on the basis of State quotas. During peacetime, competitive examinations are required in addition to the U. S. Naval Reserve Physical Examinations. During the war, mental examinations have been waived and candidates are admitted on the basis of their past scholastic records, conformance with certain personal qualifications, and the same stiff Naval Reserve Physical Examination required in peacetime.

362. What are the minimum scholastic requirements for entrance?

A candidate for appointment as Cadet-Midshipman (Deck) or Cadet-Midshipman (Engine) must possess at least 15 units from accredited schools. The candidate must have completed the prescribed number of units of work in the required group as set forth below.

Required Group (6 Units)

Three units in English.

One and one half units in mathematics from any of the following or any combination of the following subjects:

Algebra	Advanced algebra
Plane geometry	Plane trigonometry
Intermediate algebra	Spherical trigonometry
Solid geometry	Calculus

(In order to pursue successfully the course of study of the United States Merchant Marine Cadet Corps, a thorough working knowledge of algebra is absolutely essential. The candidates desiring appointment as Cadet-Midshipmen (Deck) should begin a study, or review, of trigonometry immediately upon notification of approval of their application.)

One and one-half units in science from any of the following groups or any combination of such group:

Physics	Mechanical arts subjects
Chemistry	(for Cadet-Midshipmen
General science	(E))
Aeronautics	Vocational and workshop
	subjects (for Cadet-Mid-
	shipmen (E))

Elective Group (9 Units)

In addition to the above required 6 units, candidates must furnish evidence of the completion of at least 9 units of other subjects at accredited schools.

363. To whom should application for appointment as Cadet-Midshipman be made?

Application for appointment as Cadet-Midshipman, together with all supporting papers, is to be submitted to the Supervisor, United States Merchant Marine Cadet Corps, Training Organization, War Shipping Administration, Washington 25, D. C.

364. What papers are to accompany the application for appointment?

(a) Certified transcript of the candidate's scholastic record forwarded from the Registrar, or other official of the school, directly to the Supervisor.

(b) Two certified copies of birth certificate (if of foreign birth, proof of citizenship), with application. In cases where birth certificates are not available, proof of citizenship submitted must be of a nature acceptable to the Navy Department for establishing citizenship for appointment as a midshipman in the Merchant Marine Reserve.

(c) One full-face 2½- by 2½-inch photograph attached to application.

(d) Three letters from responsible American citizens, including, if possible, one of the candidate's secondary school teachers, attesting to the moral character of the applicant.

365. What is the pay which a cadet receives?

The Cadet-Midshipman receives pay at the rate of \$65 per month while attached to the Academy, basic schools, or places of special shore training. While aboard ship, the Cadet-Midshipman receives \$82.50 per month from his steamship company employers. In addition he will receive such war bonuses as may be prescribed by the Maritime War Emergency Board for officers and crews of vessels. He will also be furnished with quarters and subsistence while assigned to the Academy, basic school, or aboard ship.

366. Who pays for the transportation of the Cadet-Midshipman from his home to the basic school?

The War Shipping Administration will reimburse him at the rate of 5 cents per mile, provided the Cadet-Midshipman satisfactorily completes basic training.

367. Where are the basic schools?

Basic schools are located at San Mateo, Calif.; Pass Christian, Miss.; and also at the U. S. Merchant Marine Academy, Kings Point, N. Y.

368. Are any aptitude tests given?

One of the first things a new Cadet-Midshipman is required to do is to take a battery of four aptitude tests and one personality inventory. The young man's aptitude in reading comprehension, mathematics, mechanical ability, and his general psychological development are all tested. These examinations are not qualifying or disqualifying, but they do provide a rather accurate index both as to his development and skills along the lines tested.

369. What is the length of the course?

Wartime necessities have required a cut from 4 years to 18 months.

370. What are the various phases of training?

In order to tie the academic and shipboard training together, the program has been broken down into three main phases:

1. Basic training—12 weeks.
2. Shipboard training—6 months.
3. Advanced training—36 weeks.

371. What does basic training include?

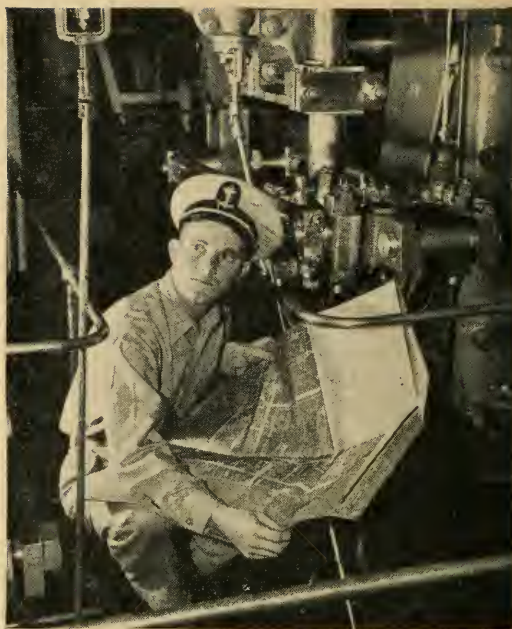
Basic training for wartime purposes totals 12 weeks and may be taken at any one of the three schools maintained by the Cadet Corps. During this period the Cadet-Midshipman is carefully indoctrinated, tested, clothed, and provided with textbooks, after which follows an intensive schedule consisting of classroom work with correlated drills. The course of study pursued during this basic training period is as follows:

Deck Course
Theoretical seamanship
Ship construction

Engine Course
Steam engineering
Diesel engineering



Wheel in Hand



Looking Over the Lay of the Land

Aim . . .



Cargo	Mathematics
Navigation and mathematics	Electricity
Boat drill (oars and sails)	Ship construction
Floating equipment, marlinespike, seamanship, etc.	Machine shop
General drills	Boat drill (oars and sails)
Visual signaling	Floating equipment
	General drill

Courses for Both Deck and Engine Cadet-Midshipman

Naval science	Safety seamanship—
Safety seamanship, general knowledge, and first aid	physical conditioning
	Inspection
	Competitive athletics

In addition to the above-mentioned activities, inspection trips to shipyards and merchant vessels, all-day cruises on training vessels, overnight trips in lifeboats, and evening motion pictures and lectures are required. The basic training program has been designed to make the Cadet-Midshipman as useful as possible when he reports aboard ship for his 6 months' sea training. Aboard ship most of a Cadet-Midshipman's progress depends on his own efforts and willingness. He is expected to fill his job and the Cadet Corps endeavors to teach him those things he must know if he is to be useful and if he is to have a chance to prove his worth.

Next in importance, and almost synonymous with the training of a Cadet-Midshipman to do his job, is the physical conditioning of the young man so that he may have the endurance, strength, and agility not only to do his work but to save his life in the event of an emergency.

Practical work during the basic training period consists primarily in becoming familiar with the jobs a Cadet-Midshipman is expected to do when he first reports aboard ship. For example, Cadet-Midshipmen (Engine) are required to be familiar with all pipe sizes and fittings, wrenches, nuts, bolts, etc., inasmuch as sight recognition is required. In fact, this project constitutes part of the "minimum essentials" of the basic training course. Practi-

cal work for Cadet-Midshipmen (Engine) during the basic course includes machine shop practice (with particular emphasis on hand tools and bench work), pump operation and repair, steam engine operation, care of generators, and engine maintenance.

A similar project for Cadet-Midshipmen (Deck) is the course given in visual signaling. All Cadet-Midshipmen must obtain at least a proficiency rating during their basic training course. This proficiency rating is another case of minimum essentials. A grade may be determined for each Cadet-Midshipman regardless of these minimum requirements by judging how quickly he grasped the subject and how proficient he becomes. There are, of course, other similar projects, the two mentioned being merely illustrations. Practical work for Cadet-Midshipmen (Deck) during the basic course includes knot tying, care of rope, cargo rigging, use of the heaving line, etc. In general, the Cadet-Midshipman is taught those things that will familiarize him with his duties aboard ship.

372. Upon completion of the basic training program, what happens to the cadet midshipman?

Upon the completion of the basic training program, the Cadet-Midshipman is assigned aboard ship in order that he may gain first-hand information so necessary to a Merchant Marine officer. In addition to assigned duties aboard ship, the Cadet-Midshipman pursues a regular program of study which is designed to give him a practical working knowledge of his ship. The courses are as follows:

<i>Deck</i>	<i>Engine</i>
Mathematics (extension course)	Mathematics (extension course)
Elementary marine engineering (extension course)	Steam or Diesel engineering (extension course)
Sea projects in—	Sea projects in—
Cargo handling	Steam or Diesel engineering
Seamanship	Machine shop
Navigation	Electricity
Ship construction	

A reading course in naval science is also required for both Deck and Engine Cadet-Midshipmen.

The 6 months' sea training period emphasizes the practical side of the Cadet-Midshipman's course. A few academic courses are carried on aboard ship, but at least 75 percent of the work at sea is done in the practical sea project. A ship is a full-sized laboratory and while aboard a Cadet-Midshipman should be guided in such a manner that he becomes familiar with every item of equipment and the duties of every officer in his department.

The sea project has been designed to teach the Cadet-Midshipman as much about his ship and the duties of the officers as is possible. Separate projects have been written for Cadet-Midshipmen (Deck) aboard cargo and passenger vessels, Cadet-Midshipmen (Deck) aboard tankers, Cadet-Midshipmen (Engine) aboard steam vessels, and Cadet-Midshipmen (Engine) aboard Diesel vessels.

To illustrate the manner in which the sea project has been laid out, the following sample questions are given:

From the sea project for Cadet-Midshipmen (deck) assigned to passenger or cargo vessels:

1. Where is the docking telegraph located on your ship?
 - (a) What is its purpose?
 - (b) By whom is it operated?
 - (c) What record is kept of its operation?
 - (d) What signals can be given on this telegraph?
2. Describe the routine steps followed on your ship when securing the mooring lines and other docking equipment for sea.
3. List the capacities of all cargo booms carried on your ship.
4. Which officer on your ship is charged with the responsibility of looking after the batteries of the radio direction finder?
5. What log notations are required in reference to cargo ventilation?

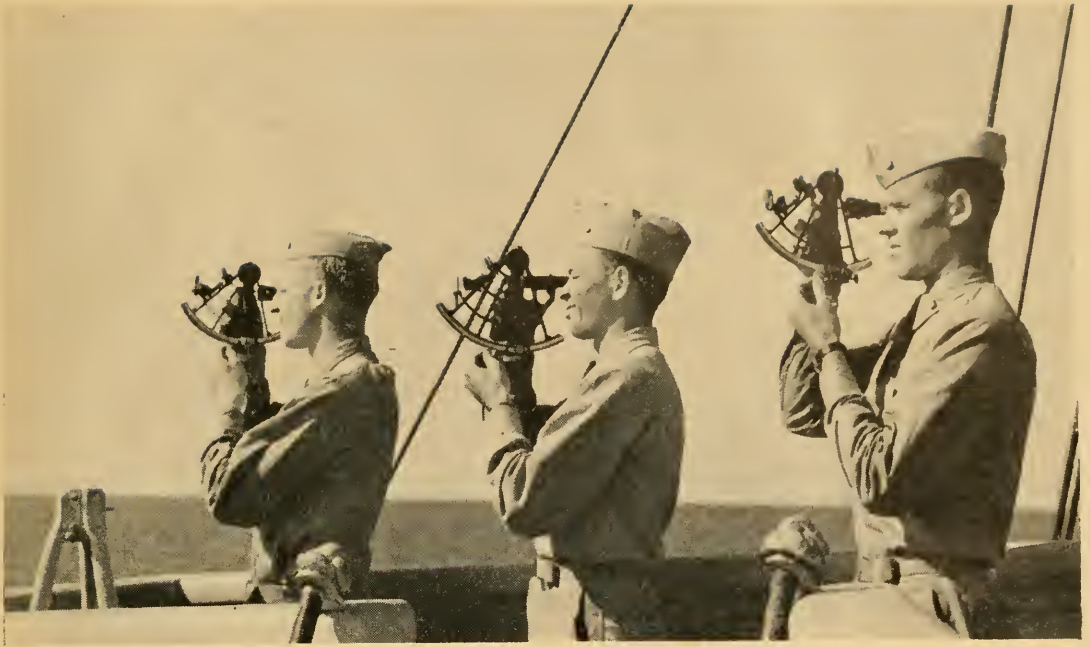
From the sea project for Cadet-Midshipmen (engine) assigned to steam vessels:

1. If you were told to shift the auxiliary exhaust steam from the condenser to the atmosphere, what valve would you open? Where is this valve located on your ship?
2. Why are all the lights in your engine room enclosed in a heavy glass globe and wire guards?
3. State in detail everything that must be done to start the fire pump in your ship, naming all valves, controls, switches, etc., in proper sequence of opening.
4. What type and make of fuel oil burner does your ship carry? Sketch a burner used on your ship.
5. What pump can be used to pump circulating water through the main condenser in case the main circulator broke down? Describe the steps to follow if this shift becomes necessary.
6. Make a diagrammatic sketch of the steam smothering system on your ship, showing the location of master and hold valves.

373. What course of study is followed during the 9 months of advanced work?

The advanced course of training endeavors to bring Cadet-Midshipmen to as high a degree of perfection as possible by correlating the classroom work with both the experience gained at sea and the laboratory work which forms part of the advanced course. This is an intensive period of training which covers 36 weeks. The course of study is as follows:

<i>Deck</i>	<i>Engine</i>
Navigation	Diesel engineering
Meteorology	Steam engineering
Seamanship and cargo	Electrical engineering
Shipping economics	Ship construction
First aid	Mechanical drawing
Mechanical drawing	First aid
Ship construction	Shop theory
Boat drill	Boat drill
Visual signalling	Machine shop
Radio code and general electricity	Engine laboratory
Practical seamanship	



Shooting the Sun

Communications Practice



Courses for Both Deck and Engine Cadet-Midshipmen

Advanced naval science

Competitive athletics

Evening lectures, inspection trips, etc., are also required.

374. Is naval science required?

Since all Cadet-Midshipmen of the United States Merchant Marine Cadet Corps are enrolled as Midshipmen in the Merchant Marine Reserve of the U. S. Naval Reserve, naval science for both the basic and advanced courses is required. In addition, before a diploma is awarded, each graduate must apply for and accept his commission as ensign in the U. S. Naval Reserve.

375. What phases of safety at sea are studied?

First aid and lifeboats; abandoning ship procedure and training; swimming; small boat drills; physical conditioning; survival in lifeboat or liferaft.

376. For what does the training prepare a Cadet-Midshipman?

At the end of the 18 months of training Cadet-Midshipmen (Deck) are eligible to take the examination for third mates and Cadet-Midshipmen (Engine) are eligible to take the examination for third assistant engineer and after receiving licenses they are qualified for such duties as officers in charge of watches on deck and in the engine rooms of the U. S. Merchant vessels. Some graduates enter active duty with the Navy services aboard Naval vessels.

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